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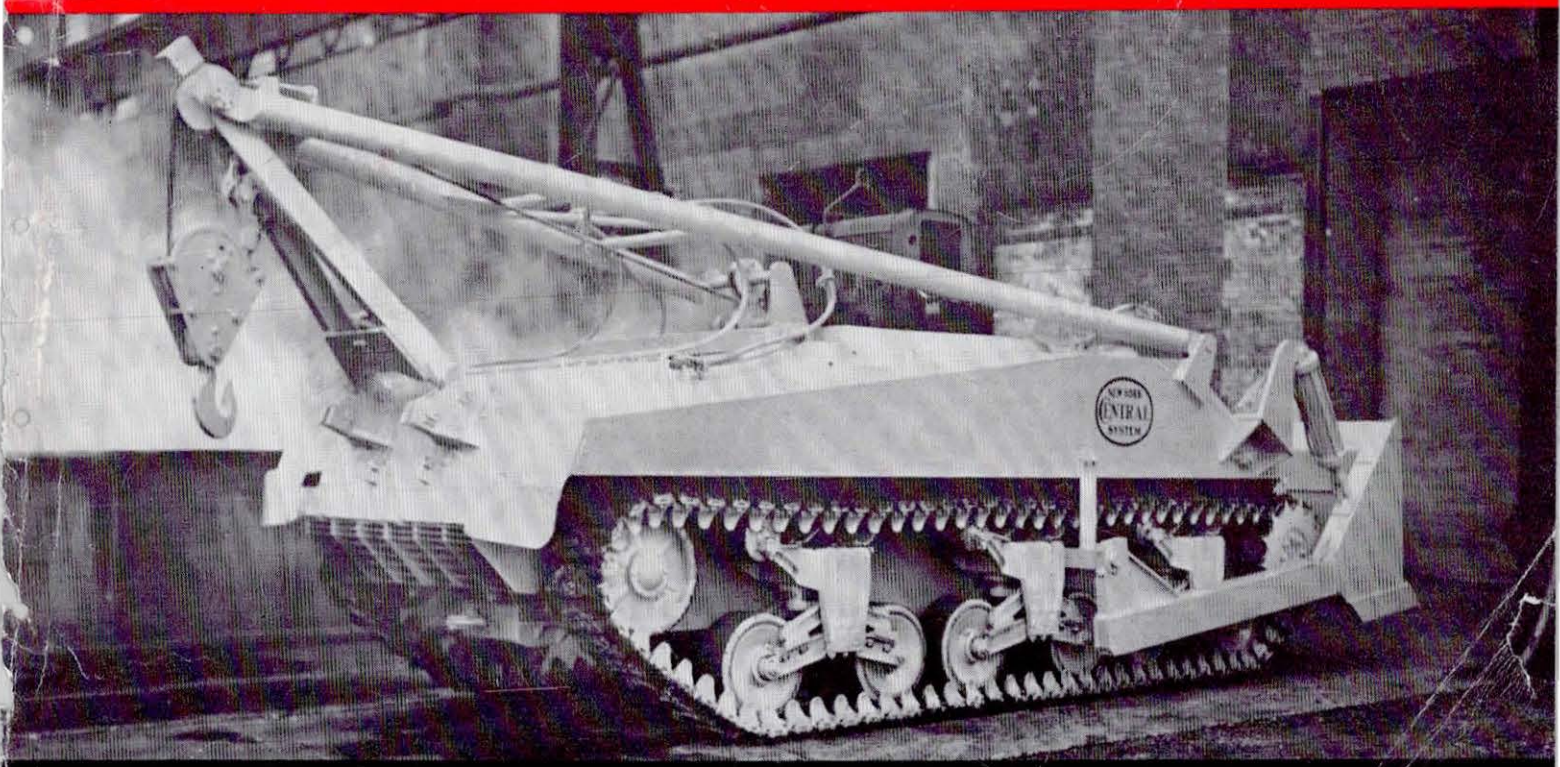
Why 'Gradual,' Mr. Mitchell?.. p. 38

May 9, 1960

RAILWAY AGE *weekly*



↑ New wrecker rig from NYC's 'idea factory'... p. 18

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BEAVER FALLS PA

Terminal Speed

TRRA saves time, money with pre-block plan at St. Louis.. p. 24

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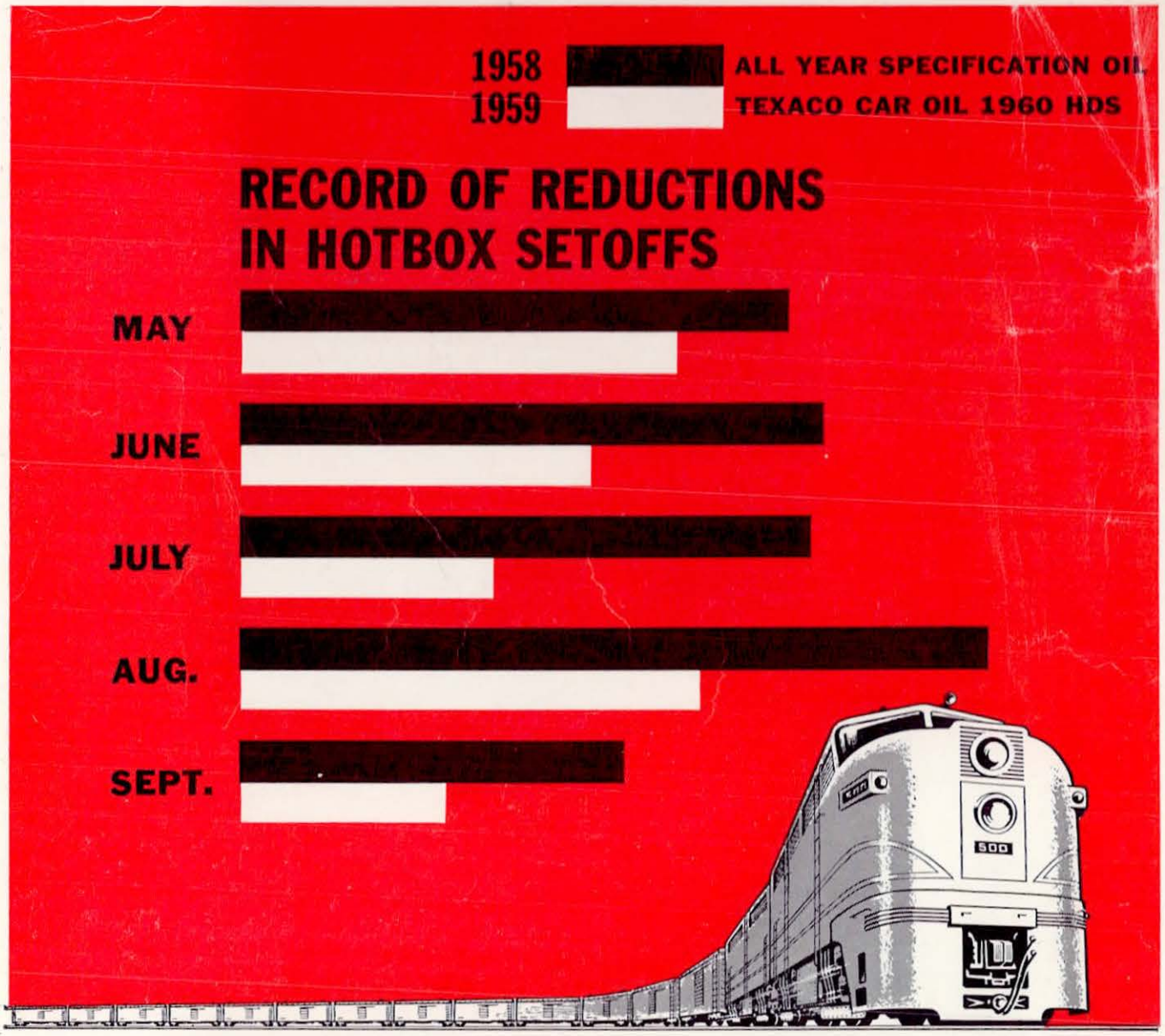

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40% FEWER HOTBOX SETOFFS

The figures graphed above show that it pays to use a premium, summer grade car oil for your free oiling. In the case cited, note the vastly improved performance with Texaco Car Oil 1960 HDS as compared with the previously used all-year specification oil.

The graph is based on records of a busy yard handling some 100,000 cars a month. During the 5-month period, May through September, 1959, more cars were handled than in the same period in 1958, yet, with Texaco, there were *40% fewer setoffs charged against the yard!*

Texaco Car Oil 1960 HDS is specially formulated for summer use, has been extensively proved in road service. Act now to reduce *your* hotbox setouts this summer. Call the nearest Texaco Railway Sales Office in New York, Chicago, San Francisco, St. Paul, St. Louis or Atlanta. Texaco Inc., *Railway Sales Division,* 135 East 42nd Street, New York 17, N. Y.

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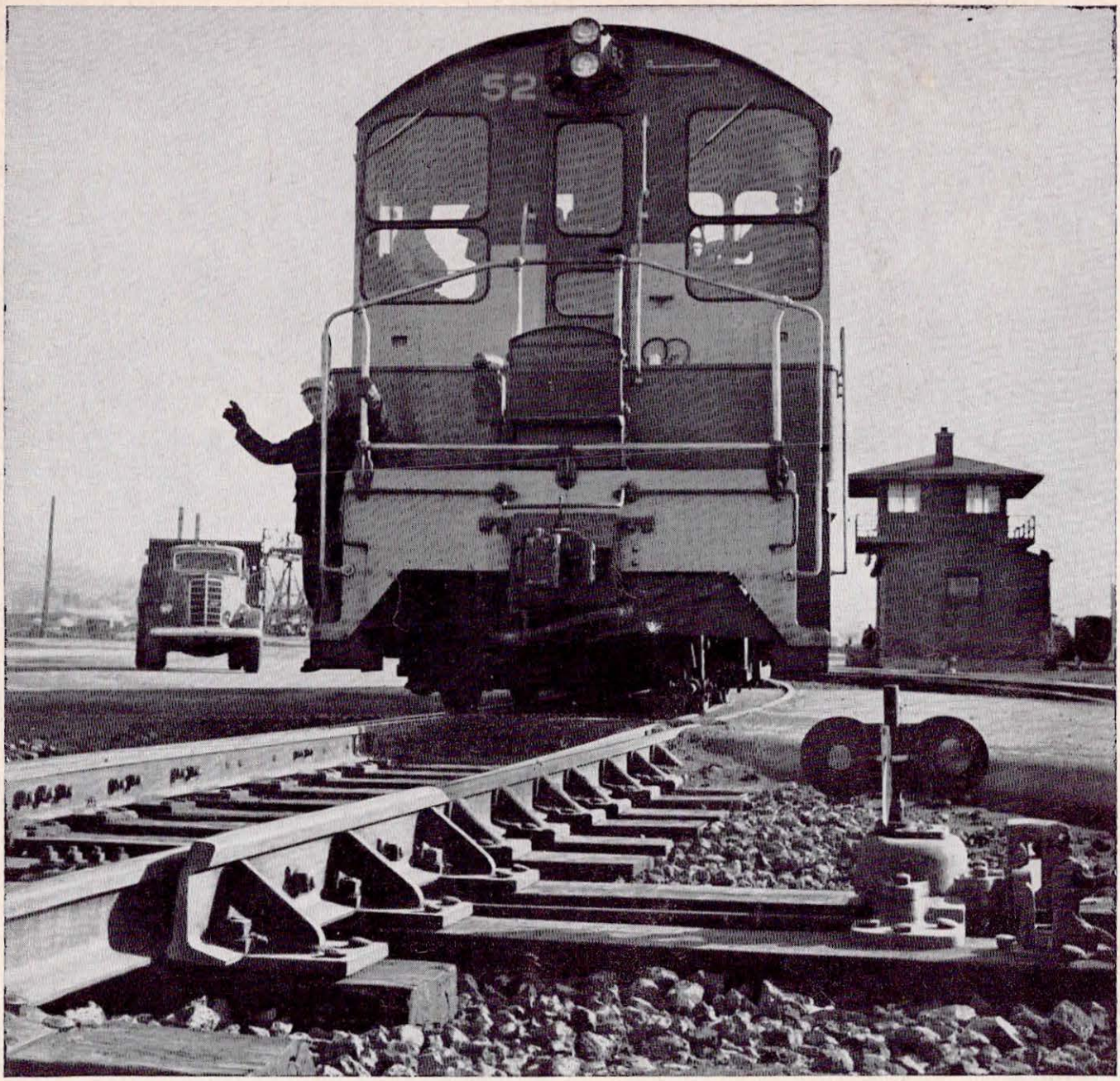

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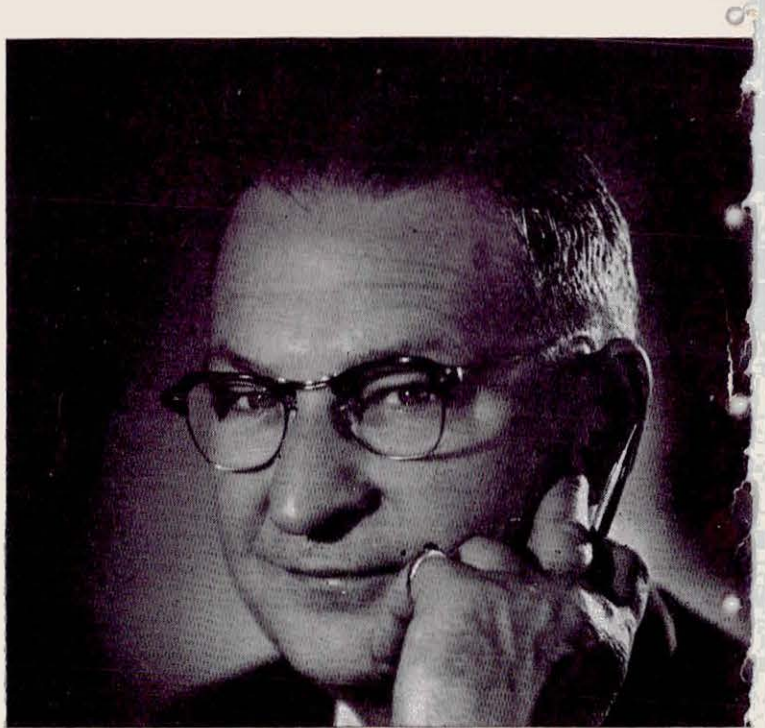
"To obtain economies comparable to those of the diesel over the steam locomotive, railway officers may well look to modern signaling in automatic classification yards and Centralized Traffic Control. Savings on the order of 20%, or even more, on invested capital should spark a major railroad signal rehabilitation program for the Class I railroads over the next decade."

The door to better and more economical railroad operation is still open . . . if the industry turns to mechanization. It's the practical way for railroads to expand operations while reducing their operating costs.

Roads with CTC and automatic classification yards have reported a 30 to 40% return on their investment. Contact Union Switch & Signal for the latest facts on traffic control and classification yard systems.



Portrait by Editta Sherman

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RAILWAY AGE *weekly* May 9, 1960 • Vol. 148, No. 19

Week at a Glance

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Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

Missile-train tests scheduled ..... p. 9

Six dry runs—three out of Ogden, Utah, and three out of Des Moines, Iowa—are planned to test the mobile missile-launcher concept. First test run will begin June 20. Participating railroads include UP, GN, CB&Q, NP, Milwaukee, C&NW, WP, and D&RGW.

How CTC changes M/W picture p.16

CTC presents a greater opportunity for using off-track maintenance equipment because of the roadways gained alongside the remaining track, says D&H Chief Engineer C. E. R. Haight. As more and more territory comes under centralized traffic control, maintenance expenses will decline.

Cover Story—NYC's 'idea factory' pays off p.18

Railroad research is good, but it should be better. So says J. J. Wright, director of the NYC's Technical Research Laboratory. Here, in Mr. Wright's own words, is how he assays the present and future work of railroad research.

Rock Island uses sound to clean teleprinters p.23

It's ultrasonic sound, of course, and cleans better and faster than hand methods. The sound oscillates at 40,000 cycles a second.

Cover Story—TRRA pre-blocking saves time and money p.24

Interchange time at the vital St. Louis gateway has been cut sharply. Pre-blocking, essentially a timesaving plan, also has a moneysaving aspect at St. Louis. It could save St. Louis railroads over $750,000 a year.

GE offers 2,500-hp unit to domestic diesel market p.32

The company has "confidence in the growth of the American railroad industry," and feels its high-speed, four-axle U25B unit is the kind of power that will get traffic back on the rails.

High earnings of engineers cited p.35

Since 1947, the BLE wage arbitration panel was told last week, labor costs for four classes of engineers have increased 11.8% in real dollars. During the same period, railroad income has dropped 20.8% in real dollars.

The Action Page—Why 'gradual,' Mr. Mitchell? p.38

The Secretary of Labor hopes for "gradual elimination of

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Week at a Glance CONT.

Current Statistics

Operating revenues	
2 mos., 1960 ...	$1,563,389,022
2 mos., 1959 ...	1,532,213,474
Operating expenses	
2 mos., 1960 ...	1,254,520,883
2 mos., 1959 ...	1,253,755,076
Taxes	
2 mos., 1960 ...	168,158,367
2 mos., 1959 ...	153,091,379
Net railway operating income	
2 mos., 1960 ...	85,713,645
2 mos., 1959 ...	75,670,278
Net income estimated	
2 mos., 1960 ...	55,000,000
2 mos., 1959 ...	42,000,000
Average price railroad stocks	
May 3, 1960 ..	92.94
May 5, 1959 ..	112.11
Carloadings, revenue freight	
16 wks., 1960 ..	9,423,989
16 wks., 1959 ..	9,461,188
Freight cars on order	
April 1, 1960 ..	42,131
April 1, 1959 ..	35,487
Freight cars delivered	
3 mos., 1960 ..	13,850
3 mos., 1959 ..	7,223

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all government subsidies in transportation." Many railroads, though, are suffering from a galloping anemia that demands quick action.

Short and Significant

New York Central's contract rate . . .

on rugs and carpeting moving between Amsterdam, N. Y., and Chicago went into effect April 30, when the ICC's suspension ran out. The road declined to agree to a further extension. The reduced rate is available to a shipper who agrees to move 80% of his traffic by rail for a period of one year (RA, April 11, p. 39; Oct. 5, 1959, p. 7).

Next week's scheduled arbitration hearings . . .

in the DT&I-BLE radio-telephone dispute have been postponed indefinitely. The three-man arbitration board that will eventually hear arguments in the case includes S. L. Brink, BLE assistant grand chief engineer; H. W. Seeley, DT&I engineer, maintenance of way; and H. Raymond Cluster, a Baltimore attorney.

Extensive rail impact tests . . .

of TOFC equipment were made at Savanna, Ill., Ordnance Depot last week by U. S. Army Ordnance and the AAR Bureau of Explosives. Flexi-Van, conventional rail cars and missile-loaded flats were used to test trailer lading weights up to 40,000 lb.

Four-state tax relief . . .

for the New Haven was recommended last week by the Connecticut Public Utilities Commission. The PUC proposed that New York, Connecticut, Rhode Island and Massachusetts agree on a program that would "at least" eliminate the New Haven's deficit.

First 'convertible' tri-level flat car . . .

for auto shipments has made its initial move from Detroit with 15 Corvairs aboard, five on each deck of the car. The special three-deck frame, named "Tri-Level Auto-Pack," was developed by Whitehead & Kales Co. of Detroit for Southern Pacific. Auto-Pack consists of two separate steel frames, each 41½ ft long, with a combined weight of 44,000 lb. Frame sections are mounted on a Clejan-type General American R-85 piggyback flat car with a crane. Frame design is such that no modification of car tie-down equipment is required. Advantages claimed for the rig lie in its overall cost, total weight and adaptability to either automobile movement or (with the frame removed) conventional piggyback.

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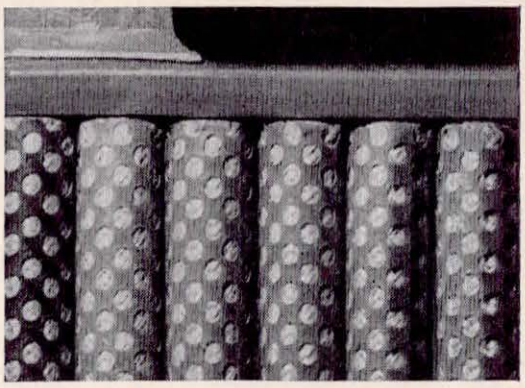

Here's the Secret. The new improved Exide-Ironclad tubular positive plate. Unlocks even more power per ounce of active material than in the past. Gives you more capacity per cubic inch of space and longer battery life for greater economy.

Missile-Train Tests Scheduled

► **The Story at a Glance: "Missile trains" will begin moving in unpredictable patterns over western and midwestern rails next month—but they'll carry no missile hardware. The Strategic Air Command, working closely with the AAR, has scheduled six dry runs to field-test the Pentagon's concept of mobile missile-launchers. The 14-car trains will stay on the road from 7 to 14 days at a time.**

Among the participating railroads: Union Pacific, Great Northern, Chicago, Burlington & Quincy, Northern Pacific, Milwaukee Road, Chicago & North Western, Western Pacific, Denver & Rio Grande Western.

"You can only imagine," says Lt. Gen. Archie J. Old, Jr., commander of the Fifteenth Air Force, "the difficulty of simultaneously destroying missiles which are constantly changing location over more than 100,000 miles of railway trackage in the United States."

In preparing to put missile trains into operation, however, the Air Force is leaving nothing to the imagination. On June 20, the first missile train will move out of Ogden, Utah, on a test run. During the following six months, five additional tests—each lasting from 7 to 14 days—will be conducted, two more out of Ogden, three out of Des Moines, Iowa.

The test trains will carry no missiles. "It is primarily a test of command control and communications," General Old told the Aviation Writers' Association in Los Angeles last week.

The trains will rove through deserts, mountains and through heavily congested railroad areas to test the mobile missile-launcher concept under all possible conditions.

"Our basic concept for the test," said General Old, "is the development of the capability to move over the civilian rail networks on a random basis, thereby complicating the enemy's ability to successfully locate our missiles and destroy them upon attack.

"The pattern of movement of the train will be completely unpredictable. The train may move only a short distance at a time, and then spend a relatively long time parked on an existing railroad siding or spur. We may decide to move longer distances, more frequently, and park for shorter times. The six deployments will give us ample opportunity to test many different operating tactics, both day and night, in all kinds of weather and under varying geographical conditions."

The test train will consist of approximately 14 Defense Department cars, with locomotives and cabooses furnished by the participating railroads. The railroads will furnish the operating crews. In addition, there'll be AAR representatives and railroad officers aboard for liaison purposes.

The Strategic Air Command will supply the military train crew and man the control activity at Hill Air Force Base, Ogden. A SAC Task Force and Train Control Center was activated at Hill AFB last week to monitor the tests and to provide the necessary continuous control over the missile train. The AAR will have a dispatcher on duty in the Train Control Center to coordinate movement requests and orders with individual railroads.

Most of the cars will be used for sleeping and feeding the 21-man SAC train crew and the military and civilian test observers. Other cars will be used for control and communications and for storing food supplies, drinking water and diesel fuel.

At least eight railroads will be involved in the test runs. How many will be involved when the trains become operational is not known. General Old said only that the Air Force "is programming a number of missile trains in widely separated areas of the country." The trains will carry Minuteman solid-propellant missiles on special launcher cars now being developed.

Will the missile trains pose a menace to public safety? General Old's answer is an emphatic "no."

"Naturally," he said, "when one thinks of operational missiles being carried as a routine thing over the railroads, the question of safety undoubtedly comes to mind. We feel the safety record of the railroads speaks for itself. For many years now, the railroads have carried nuclear materials, explosives and other volatile products very successfully."

Arpaia Joins Railway Express

Anthony F. Arpaia, former member and one-time (1956) chairman of the Interstate Commerce Commission, has been named Vice President—International Services of the Railway Express Agency, effective May 16.

Mr. Arpaia will have responsibility for Railway Express World Thruway Service, which was established in 1956 as the first international single-carrier surface service. It now handles a growing volume of shipments in both directions between all domestic points and 41 other countries.

In announcing the appointment, REA President William B. Johnson commented: "In addition to (Mr. Arpaia's) distinguished career in public service and the law, he is well-versed in international transport and world trade. As an articulate exponent of privately owned public transportation and a seasoned analyst, Mr. Arpaia is specially qualified to undertake the development of the tremendous growth potential in our international services."

Seatrain Service May Get Reprieve

The Savannah-New York water carrier service of Seatrain Lines Inc. may have been saved by the ICC, despite the Commission's refusal to prescribe all-rail rates on pulpwood differentially higher than the competing rail-Seatrain-rail rates.

Relief for Seatrain will come from that phase of the Commission's decision which requires railroads to lower local rates and switching charges which are factors in the rail-Seatrain-rail rates.

The Commission's decision passed on the complaint filed by the state of Georgia last November, after the railroads published reduced all-rail rates on pulpwood moving from St. Marys, Ga., and Port Wentworth to points in New York and New Jersey. The rail-rate reductions amounted to 30% and removed previously-existing differentials. Seatrain found itself unable to meet the cut and announced that it would be forced to discontinue its service, which operates between Savannah and Edgewater, N. J.

The Commission's refusal to prescribe differentials was based on cost evidence which indicated that the all-rail route was the low-cost route on both out-of-pocket and full-cost bases. The Commission did not read cited court decisions on rail-water rates and routes as indicating that it could ignore such cost evidence.

The effect of the relief granted in the way of cuts in local rates and switching charges indicates that Seatrain will be left in a good position to compete for business out of Port Wentworth, but that the rail-Seatrain-rail rates from St. Marys may still be higher than the all-rail rates. The latter are 55 cents per 100 lb from St. Marys and 53 cents from Port Wentworth. Present rail-Seatrain-rail rates are 71 cents and 63 cents, respectively. The reductions in the rail rate factors ordered by the Commission will cut the former to 58½ cents and the latter to 44.17 cents.

Big Piggyback Need: Fast Loading, Unloading

Increasing TOFC volume will demand that equipment performing the fastest loading and unloading job be accepted as standard, says D. S. Sundel, eastern piggyback manager of General American Transportation.

"The acid test," he told the New York Transportation Research Forum last week, "will be that equipment which will clear the rail yards earliest in the morning and latest at night."

He suggested that railroads give serious thought to "selective volume rates at per car volume loads for container-car application."

Watching Washington *with Walter Taft*

A WAGE DOLLAR spent by railroads in 1959 brought 26.5% fewer gross ton-miles than in 1947. The ICC's Bureau of Transport Economics and Statistics calculates that gross ton-miles per dollar of employee compensation averaged 294 last year, compared with 1947's 400. The 1959 average, though slightly better than 1958's 291, is otherwise the poorest of the past 13 years.

MEANWHILE, however, ton-mile output per employee hour paid for has increased consistently. Last year's figure of 763 was 58.6% above 1947's 481.

EMPLOYEE HOURS PAID FOR have been cut almost in half during the past 13 years. They dropped 46.7%—from 1947's 3.6 billion to 1959's 1.9 billion. During the same period, total compensation rose 14.6% —from $4.4 billion to $4.99 billion. The average compensation per hour more than doubled—from $1.20 to $2.59. Gross ton-miles fell 15.6%—from 1.7 billion to 1.5 billion.

• **PASSENGER SERVICE DEFICIT** last year seems to have been about $544 million. This is a preliminary figure from the ICC. It's $66 million below the 1958 loss of $610 million, and $180 million below the record deficit of $724 million reported for 1957.

• **RAILROADS SEEM TO BE LOSING GROUND** to truckers in the competition for line-haul transportation business offered by freight forwarders. Last year's forwarder payments to railroads were down 0.6% from the 1958 total. But forwarder payments to truckers for line-haul transportation were up 14.1%.

RAILROAD "SHARE" of this forwarder business in 1959 was still more than three times that of truckers —$201.8 million compared with $57.3 million. But railroads were better than 4-to-1 leaders in 1958. Then they got $203 million from forwarders, while line-haul truckers got $50.2 million.

• **NICE DISTINCTIONS** are sometimes drawn by the ICC as it writes reports which decide cases. A recent example is the Commission's report on reconsideration in I&S Docket No. 6977. This involved forwarder tariffs offering so-called aggregating arrangements, i.e., reduced rates on LCL shipments, aggregating 10,000 lb or more, which originate at various points in the East for movement to a single consignee at a single destination in the West.

THE COMMISSION'S DIVISION 3 condemned the tariffs on the basis of findings that the aggregating plan was "fraught with objectionable possibilities for discrimination." In its report on reconsideration the Commission found the tariffs lawful except as to a storage provision. To thus reverse the division, the Commission went in for one of its nice distinctions. The prior report, it said, "appears to be based on remote possibilities rather than on reasonable probabilities of discrimination."

The New N&W . . .

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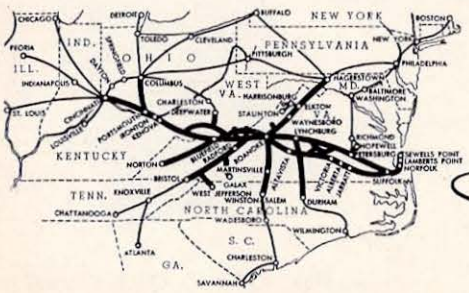
- New, easier grades, more interchange points with other railroads.
- Now a billion dollars in assets.

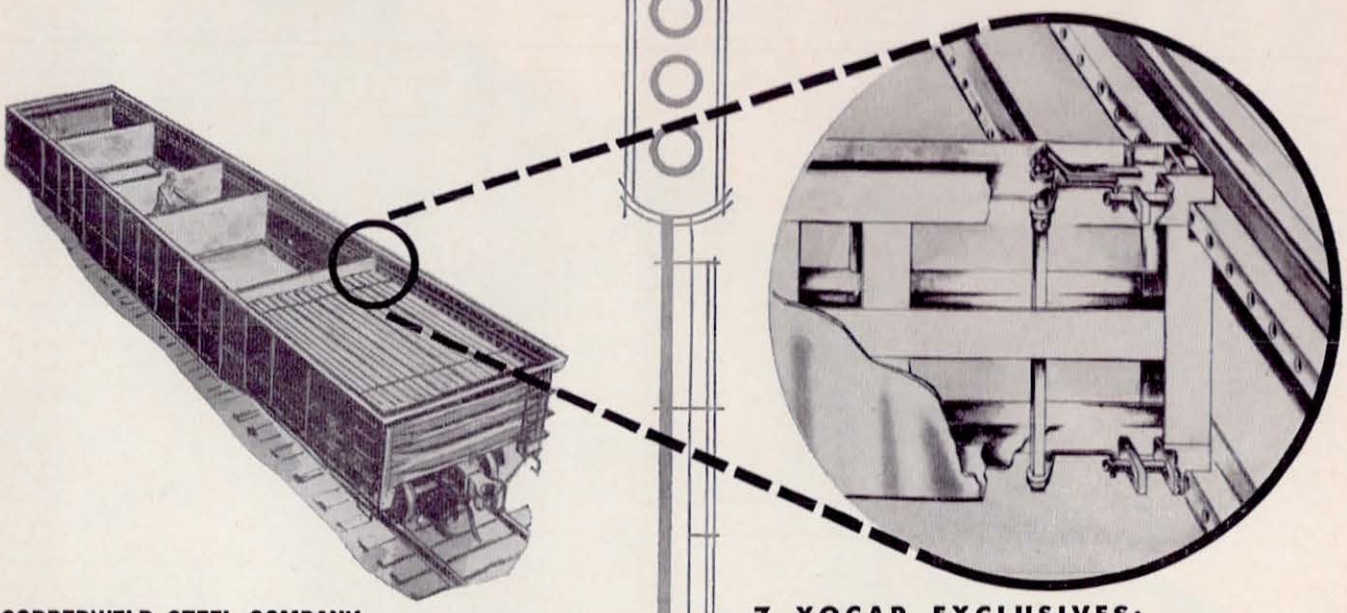


Norfolk and Western Railway

GENERAL OFFICES • ROANOKE, VIRGINIA

How "RoLLoK" Movable Bulkheads Solve Shipping Problems . . .

FOR SHIPPERS **FOR RAILROADS**



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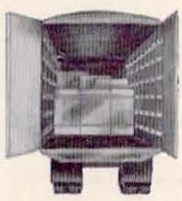
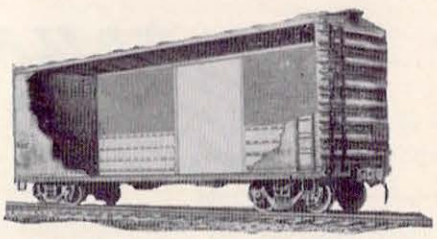
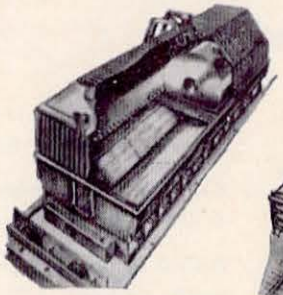


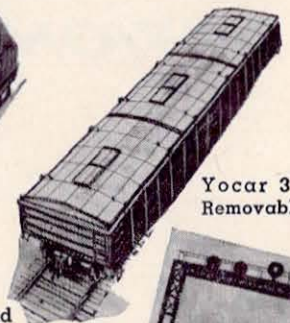
Safe-Cargo Anchor Rails for piggy-back trailers.



Yocar Safe-Cargo Econo-Guard —increases car wall life.



Shock-Spring Coil Skids and protective hood with seam-lock and corner strength.



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Why Not Standard Wrist Watch?

To the Question and Answer Editor:

The description of a reliable watch set forth by Trainmaster J. R. McCormick, Bessemer & Lake Erie (RA, Feb. 1, p. 13), should be analyzed.

The watchmaking profession considers a reliable watch one that will run without stopping and that can provide time accuracy within safe limits. A watch that varies 3 minutes in 24 hours would not be considered as providing time accuracy within safe limits. Any watch movement with from 1 to 23 jewels may be considered a "jewelled movement." Any watch movement, whether jewelled or not, will normally perform within the limits of 1 minute in 8 hours. It is the construction of a watch movement, plus the number of jewels that perform a necessary function, which determine its reliability.

Wrist watches, and a number of pocket watches other than railroad grade, are stem set. A variety of stem set mechanisms are employed in these watches. Under certain conditions the hands in any of them may be placed in setting position. Then, a slight turn of the crown, possibly unbeknown to the wearer, may set the watch fast or slow.

To overcome this hazardous condition, a lever set mechanism has been in use in the railroad-grade watch for more than 60 years.

The railroad-grade watch movement embodies the construction, jewelling and setting mechanism which assure reliability. The owner of any watch whose maximum variation may be as much as 1 minute in 8 hours would not consider it reliable.—*C. D. Fabrin, time service manager, Southern Pacific.*

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Recognizing the fact that knowledge of the classes of cars is important to car distributors and others, the Great Northern has adopted a code system which is used in all train consists and in all large assembly yards for yard checks, copies of which are sent to the car distributors daily. Attached is a copy of the code list. While the ramifications of classification are so extensive, it has not been possible to work out a code that will give all the information needed. But the one the GN is using has greatly helped in distribution of cars.

In the Pacific Northwest where such a large part of the industry is the manufacture of pulp, paper and similar products, the suitability of the car has to be determined by local car inspectors, which prohibits the coding of cars suitable for pulp, paper, flour, doors, dressed lumber, etc., all of which is highly important. Those classifications are, however, available to the man in the yard office filling the orders from the car distributor.—*H. B. Bassett, assistant general superintendent transportation, Great Northern.*

KIND OF CAR CODES

	40 FT	50 FT
AUTO		
Auto rack	AR	
Auto parts	AP	
BOX		
6 ft single door	B2	B1
7 ft or more single door	B4	B3
Plug door	B6	B5
Double door	B8	B7
Passenger box	BP	
Damage free	BD	
FLAT		
40 ft to 49 ft	F4	
50 ft or more	F5	
Well or depressed	FW	
TOFC—short	FT	
TOFC—long	F8	
Special	FS	
Bulkhead	FB	
Log	FL	
STOCK		
Single deck	S1	
Double deck	S2	
Triple deck	S3	
Shuttered	SS	
GONDOLA		
65 ft	G6	
Drop end	GD	
40 ft common low side	GL	
40 ft common high side	GH	
46—48—50 ft	G5	
WOOD CHIP OR HOG FUEL	GC	
HOPPER		
29-39 ft	H	
40 ft or more	H4	
Covered Triple	CT	
Covered Double	CD	
Covered Airslide	CA	
REFRIGERATORS		
Regular	R	
Mechanical	RM	
Insulated box	RI	
Passenger	RP	
Racks or rails	RR	
TANKS		
Regular	T	
Regular—Large (over 15,000 gal)	TL	
Glass lined	TG	
Other lined	TO	
Insulated	TI	
NON-REVENUE		
Caboose—with train	X	
Caboose—deadhead	XD	
HOPPER		
Covered—Company sand	CS	
LOCOMOTIVE		
Train primary	EP	
Train secondary	ES	
Train helper	EH	
Deadhead	ED	
Tank—Company fuel service	TC	
Passenger in freight	P	
Maintenance of way	MW	

Now railroads can offer shippers of granular or powdered commodities faster, simpler pneumatic unloading. One man following three simple steps can hook up this pneumatic unloader in a matter of seconds. Just unscrew the unloading cap, open the air inlet and insert the suction hose to complete the operation. Additional features include: simple fool-proof control by damper adjustment and fixed metering; no special tools required to

One man does the job in 3 simple steps

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Damage free		BD

FLAT
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- 50 ft or more F5
- Well or depressed ..... FW
- TOFC—short ..... FT
- TOFC—long F8
- Special ..... FS
- Bulkhead ..... FB
- Log ..... FL

STOCK
- Single deck S1
- Double deck S2
- Triple deck S3
- Shuttered ..... SS

GONDOLA
- 65 ft G6
- Drop end ..... GD
- 40 ft common low side ..... GL
- 40 ft common high side ..... GH
- 46—48—50 ft G5
- WOOD CHIP OR HOG FUEL ..... GC

HOPPER
- 29-39 ft ..... H
- 40 ft or more H4
- Covered Triple ..... CT
- Covered Double ..... CD
- Covered Airslide ..... CA

REFRIGERATORS
- Regular ..... R
- Mechanical ..... RM
- Insulated box ..... RI
- Passenger ..... RP
- Racks or rails ..... RR

TANKS
- Regular ..... T
- Regular—Large (over 15,000 gal) ..... TL
- Glass lined ..... TG
- Other lined ..... TO
- Insulated ..... TI

NON-REVENUE

- Caboose—with train X
- Caboose—deadhead ..... XD

HOPPER
- Covered—Company sand ..... CS

LOCOMOTIVE
- Train primary ..... EP
- Train secondary ..... ES
- Train helper ..... EH
- Deadhead ..... ED

- Tank—Company fuel service ..... TC

- Passenger in freight ..... P
- Maintenance of way ..... MW

Now railroads can offer shippers of granular or powdered commodities faster, simpler pneumatic unloading. One man following three simple steps can hook up this pneumatic unloader in a matter of seconds. Just unscrew the unloading cap, open the air inlet and insert the suction hose to complete the operation. Additional features include: simple fool-proof control by damper adjustment and fixed metering; no special tools required to

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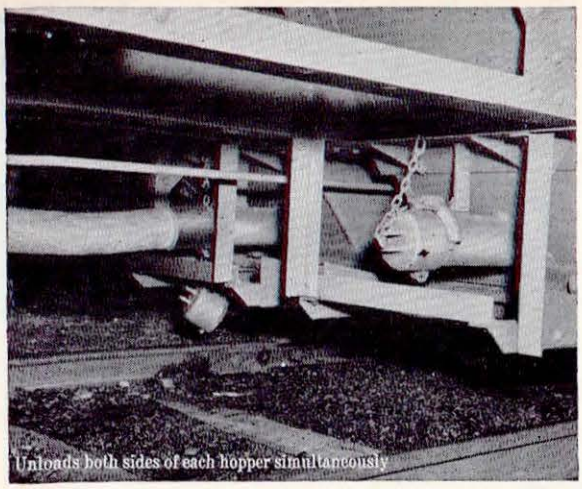
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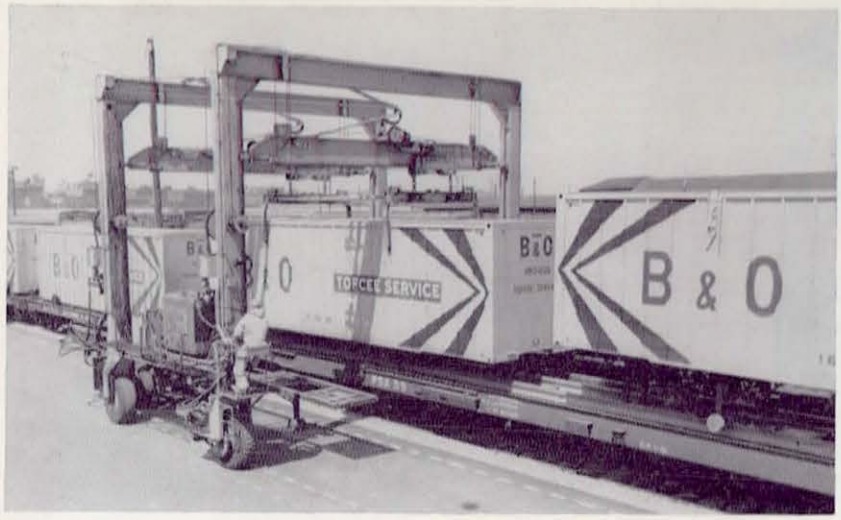
MAN UNLOADING HOPPER CAR"



P-S Develops Cushion Container Cradle

An 85-ft flat car equipped with a cushion container cradle may be the forerunner of combination trailer-container cars in the Trailer Train fleet. Pullman-Standard installed the cradle—named the "Protectoframe-20"—on a standard P-S 85-ft car, which Baltimore & Ohio is now testing on behalf of TTX. Later, P-S will place the unit on display at the AAR Mechanical Division and Electrical Section meeting in San Francisco. With the cradle in place, the car may be used for conventional end-loading piggyback or for side-loading of either trailers or containers by means of a Travel-Lift crane (above). Containers rest on an I-beam frame mounted in hold-down brackets welded to the car floor. The frame is free to travel on impact, but cushioning devices located between the I-beams at two locations limit longitudinal movement to 10 inches in either direction and return frame and container smoothly to original position. Cushioning action comes through compression of a multiple sandwich of steel discs and rubber pads. Four vertical stops at each cushion location control the device.

How CTC Changes M/W Picture

Centralized traffic control with its attendant reduction in trackage dictates that more off-track maintenance of way equipment be used, stated C.E.R. Haight, Delaware & Hudson chief engineer at the April 28 Metropolitan Maintenance of Way Club meeting in New York.

In a discussion period regarding off-track M/W equipment, J. W. Cummings, D&H supervisor of work equipment, said: "I hope, in about five years, we'll have a package unit . . . to insert ties, to tamp, to do a complete job."

"You have greater opportunity for the use of off-track equipment [when CTC is installed] because of the roadways gained alongside the remaining track," said Mr. Haight. This gain of the roadways, he remarked, "makes the working of off-track machinery an essential condition in the design of our track equipment." The D&H will have 160 miles of roadway available when two CTC projects now under way are completed. Also the railroad will have CTC on 300 miles or 66% of its mainline.

"Track occupancy by M/W forces is simplified where CTC has been installed," Mr. Haight emphasized. The reason is that "the dispatcher can see at a glance on the CTC machine what train situation exists at any given location. Also, it is possible, to the extent that the dispatcher is able, to set up signals and routes so the maintenance forces can move or work without delays which can occur due to flagging requirements in other than CTC territory."

"The maintenance of way man should know the operating rules applicable to CTC." He should know the limits of CTC, which tracks have two-direction running, the train traffic to be handled, etc. When planning M/W work with the transportation department, "he must be able to show how much a particular gang costs in wages when idled for an hour; how much that gang is costing per day; what effect any excessive running time will have on the cost of the job and the length of time for performing it."

CTC means a reduction in M/W expenses "because one of the important considerations when installing CTC is the ability to handle railroad traffic on less trackage than would otherwise be required and thereby effect savings in track maintenance. But if you handle 20 trains in 24 hours over one track where formerly the trains were handled 10 on each of two tracks, the cost of maintaining the one track will be greater than it was for that same track when it only handled the 10 trains. However, maintenance costs do not double. Some years ago, the AREA developed figures on this which indicated that about 33% of maintenance costs were affected by increases in traffic," stated Mr. Haight. This effect on M/W costs is considerably less than a direct ratio with traffic.

A further effect on M/W by CTC is the addition of high-speed turnouts. The D&H chief engineer said: "These require a high standard of maintenance in order to function as intended. However, we have found that these are effected by abandonments; such as, the elimination of the necessity of many crossovers when CTC reduces double track to single track, which compensates for the maintenance needs on the high-speed turnouts."

New Jersey Would Tax Commuters to Aid RRs

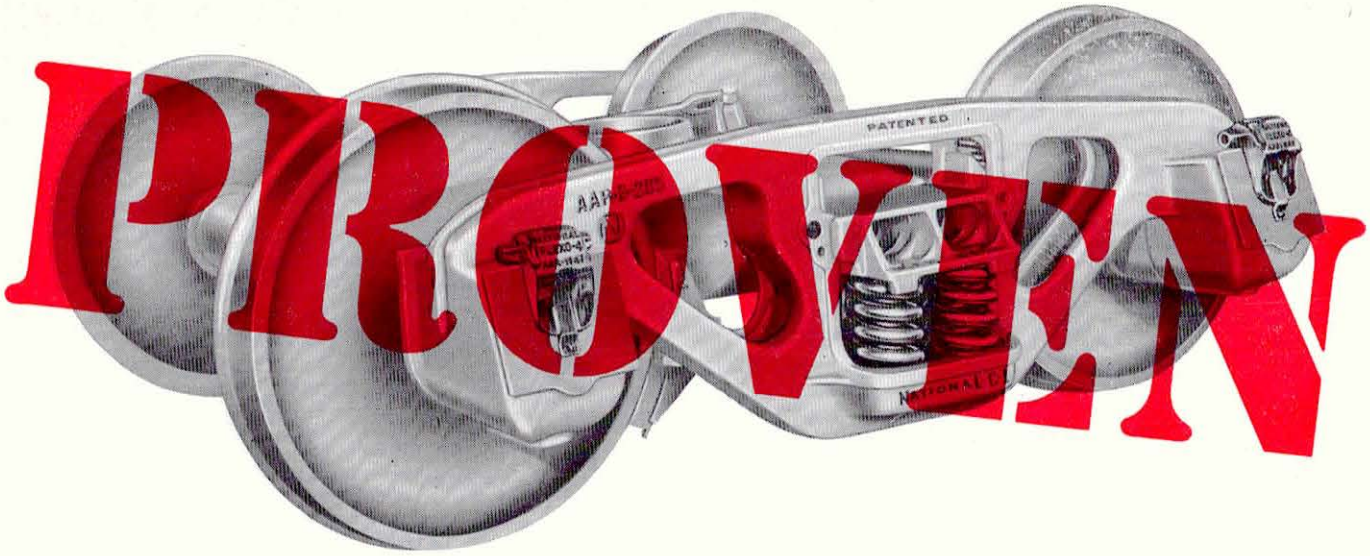
A complicated plan of interstate exchange of income tax revenues to aid commuter railroads has been proposed by New Jersey's Governor Meyner.

Under the "Meyner Plan," New Jersey would enact its first income tax law, patterned after New York state's comparable 41-year-old tax. The proposed New Jersey tax, however, would apply only to New Jersey residents commuting to or deriving income from New York, and to New Yorkers commuting to or deriving income from New Jersey.

As explained by Gov. Meyner, his proposal would make available to New Jersey somewhere between $27 and $40 million a year now paid to New York in income taxes collected by that state from New Jersey residents. New York, in turn, would collect from New Jersey an estimated $10 million in income taxes now avoided by New Yorkers working in New Jersey.

The net balance of new taxes thus collected by New Jersey—$17 to $30 million per year—would be used to improve commuter service on railroads serving the New York-New Jersey metropolitan area.

The "plan" has met with a cold reception from New York state tax officials, who view it as basically unconstitutional, and who foresee major administrative difficulties in making the exchange of tax refunds which the plan would require between the two states.



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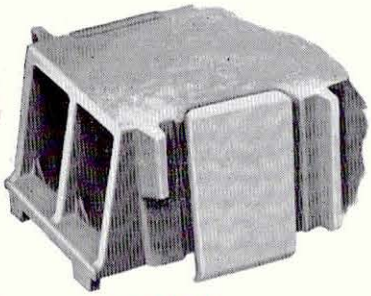

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How Research Is Working for

► **The Story at a Glance: The New York Central is experimenting with a new concept in wrecking cranes. The new crane, built on the foundation of a surplus war tank, would be hauled to where it was needed, then work off track. Since the lift comes at the end of the chassis rather than at the end of a boom, capacity is limited only by the husky diesel driving the winch (see photograph at right).**

For the story behind the machine, Railway Age went to the source: J. J. Wright, director of the railroad's Technical Research Laboratory. A man with pronounced, sometimes controversial, ideas, Jim Wright talked freely. Research of the sort that is developing the crane is absolutely essential, he says. "Without it, railroads die."

Railroad research is good right now —but it should be better, Mr. Wright says. His trenchant views are set forth below.

Q. Mr. Wright, in a recent talk, you described a revolution that's going on in railroad research, not only in rates and methods but in fundamental technical knowledge. Just what's the nature of this change?

A. Railroads are changing their thinking about research. It's no longer limited to the old product-testing pattern. Railroading, the industry in general, is more interested in finding out new things. For the first time, railroads are oriented toward applied research.

Q. Can you give me an example?

A. Yes. It used to be that railroad research was limited to testing. Someone would have a problem, like which side frame is best for a truck. So research consisted of testing side frames. No one asked why not build a different kind of truck, maybe one that wouldn't need side frames. The tests were useful; they improved components, but they didn't turn up any new systems.

Q. Is rail research getting away from testing, then?

A. We're still testing, but we're headed in a different direction. We're looking for new applications of ideas; we're even doing some basic research, the kind that makes a contribution to general knowledge. This is true on several individual roads; it's also true of the AAR.

Q. You mentioned applied research and basic research as different from test and development work. What's the difference, and where do you draw the line between them?

A. Basic research is the kind where you start out with no known object, simply to gain knowledge for its own sake. With applied research, you have a known, or at least a desired, goal that you're working for. Development and testing is a third form.

Q. Do you have all three kinds of research on railroads today?

A. Today, you do, although basic research by railroads generally grows out of something that turns up in applied research. Let me give you an example.

The D&RGW was working on trying to sterilize the skin of citrus fruit so the fruit would stand up better under shipment. That's applied research, but the results led them into basic research on vegetables. Here in the New York Central laboratory, we've been working on a sonic beam for testing ties. The process involves identification of molecules of plant tissue in the ties. This led us into some work with animal molecules.

We've been working with some people at Western Reserve who are trying to find a way of detecting cancer of the liver and spleen. They think a diseased organ has a different density than a healthy one, but they don't have the equipment to check it. Our sonic tie tester can be used with animal as well as plant tissues. So we've gotten involved in some research on the density of cancerous tissues.

Q. Why should railroads do basic research?

A. Here's where railroads are in trouble. We're getting along on our applied research and doing nicely on other people's ideas. But someone has got to put something back in the bank. And, mostly, we're not doing it.

Q. What about other industry?

A. About the only basic research is in the colleges and universities. You have a few companies, like General Electric and Westinghouse, with a wide range of products, and they have true basic research.

Q. I would think railroads would qualify, so far as having a wide range of products or applications goes.

A. They fit on those grounds, but railroads just don't have the funds for research unless they have a hope of return from it. And basic research, by definition, has no return in sight.

Q. What's the answer?

A. Perhaps basic research under government sponsorship, of the sort the National Advisory Committee for Aeronautics, now the National Aeronautics and Space Administration, does for aviation. Incidentally there is a bill before Congress to promote basic railroad research.

Q. Where does the supply industry fit the research picture?

A. Rail suppliers naturally tend to be oriented toward individual products. By and large, they don't do system research.

Q. Do you think the strict requirements for interchange service are a factor here?

A. They certainly are. Rigid restrictions bar progress, not only for railroads but for the suppliers. For instance, the Air Force has done some extensive research on the kind of cold-weather grease that works best for air brakes. Yet a supplier who tries to sell this Air Force grease to railroads is out of luck, because railroad specs are completely different.

Q. Where do competition and trade secrets come into the research picture?

A. So far as railroads themselves are concerned, we're practically ganging up to exchange information. For example, look at shock control.

About two and a half years ago, the New York Central had a request from a shipper to handle a load that was very sensitive to shock and vibration. The shipper wanted to know how much shock to allow for in packaging his shipment, and we couldn't even tell him.

As it turned out, he knew more about it than we did. He had an Air Force specification dated 1957 covering missile shipment. This warned that certain shock had to be anticipated whether shipping by truck, by rail or by air. But it said that with trucks, you should plan on an 8G acceleration; with aircraft, a maximum vertical shock of 5.5G, lateral 1.5G and longitudinal 0.8G. You know what rail shock was? Railroads were down for 30G.

This spec went to anyone connected with missiles, a group of firms that included a lot of good rail customers, many of whom had other products that needed delicate treatment. What hap-

pened? We weren't getting any office machines, even our own office machines.

A number of roads have been working on different phases of this problem for some time now. On the Central, we set out to control shock by the air flotation method. Incidentally, we've run tests that show maximum impact shock with this method of 1.5G longitudinally, 0.7G vertically and 0.3G laterally.

The Southern Pacific is working on shock and vibration, the Southern Railway on hydraulic cylinders, Pullman-Standard on draft gear and the rest; we're working on ways to control shock by different methods, for different purposes, and we're not duplicating each other. Our method is good for some purpose where shock is damaging in three dimensions; some of the other methods are indicated where longitudinal shock is the chief source of damage.

We're exchanging information freely. It helps all of us. And the AAR is working on something else for everybody's benefit—research designed to measure exactly what kind of motion you get in a moving freight car.

Another example: The AAR is trying to find the temperature of the very thin oil film that lubricates a bearing. So are we, using another method. We don't have to duplicate their work, or they ours, because we've got faith in each other's results.

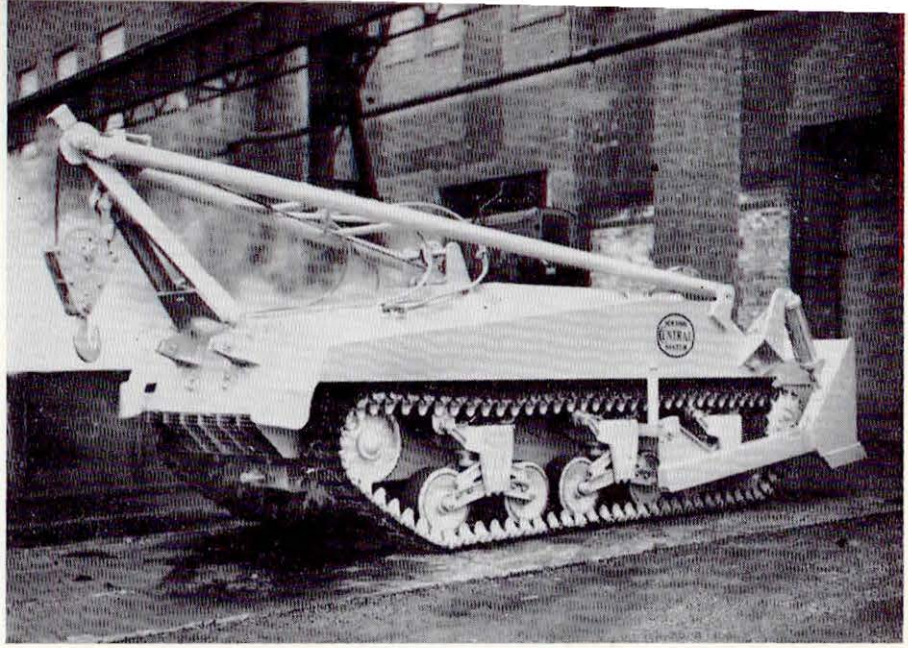
Our method, incidentally, is based on chemical changes in metals that occur at certain temperatures. Results so far indicate that the temperature of this oil film is much higher than had been suspected.

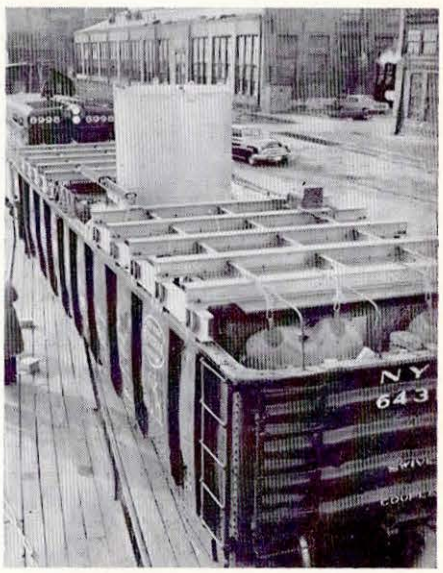
Q. What about atomic research? Where will this lead?

A. I don't see the development of an atomic locomotive. We could build one, but it wouldn't be sensible, economically. This doesn't mean railroads have to take a back seat to anybody in atomic research. In my opinion, the day isn't far away when atomic power will be simply a by-product of atomic isotopes and tracers. And in this field, railroads have made a larger contribution than any other industry. This is mainly because railroads have so many possible uses for new ideas.

Q. Does this apply to all research, not just atomic?

A. Certainly. Take fuel cells. Railroads are so active in this field that they're getting to be a clearing house for fuel cell information.





"OUR NEW OFF-TRACK WRECKER [above] grew out of a study we made of wreck clearance techniques," says NYC's J. J. Wright (below left). "We found that long reach made big wreckers less efficient. So we came up with an off-track vehicle with almost no reach. When someone got the idea of fitting it out for remote control, we really had something . . . The gondola [below right] we worked out for Babcock & Wilcox to ship reactor heads with control-rod mechanism installed. They were so pleased with our air-flotation system, they bought the car for regular use. Now the traffic is almost glued to rails."

Q. Why is this?

A. Because we have so many uses for fuel cells. When one is developed, and this isn't far off either, it will have possibilities as power for everything from standby signal lights to locomotives. The fuel cell is going to provide high availability with low cost, and this is tremendously important to railroads.

Q. One last question: How do you measure the value of research?

A. I'll give you some specific figures for the New York Central. We've now got a contract for shipping Polaris missiles by the air flotation method. The government gains because we ship the missile for $7,000, and it cost $22,000 by air. We make a good profit, and it's business we never had before.

For another example, we've done a study on the colors used in signals. It turned out that the temperature of our bulbs was too hot. This tended to cause a shift in the eye of the viewer toward too much yellow. This is particularly troublesome to older people, whose eyes see more yellow anyway. We improved visibility by changing the filament a little, which changed the color temperature of our signal bulbs. Incidentally, by changing specifications and inspection procedures, we saved ourselves 35 cents apiece on the bulbs.

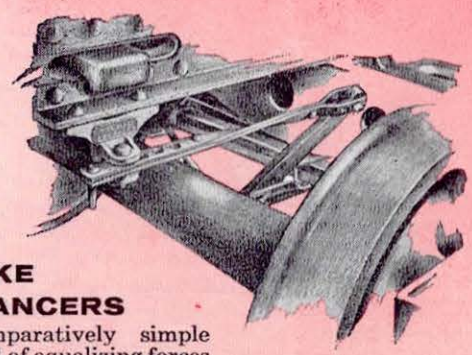
Since 1912

LEADERS IN RAILWAY APPLIANCE PROGRESS

Experienced in Design and Manufacturing of Specialized Products

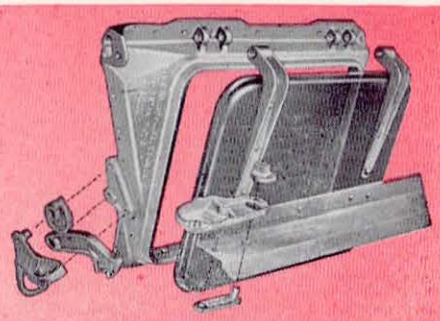
The nation's railroads are noted for many great transportation achievements . . . one of the most important being the efficient handling of the country's heavy bulk freight.

Since 1912, The Wine Railway Appliance Company has designed and manufactured many of the important parts of hopper, gondola, flat and box cars that make this handling function possible, as well as profitable, for the owners and users of the cars. In the years ahead, Wine will continue, through its experience, engineering know-how, and manufacturing skills, to keep pace with the needs of the railway industry.



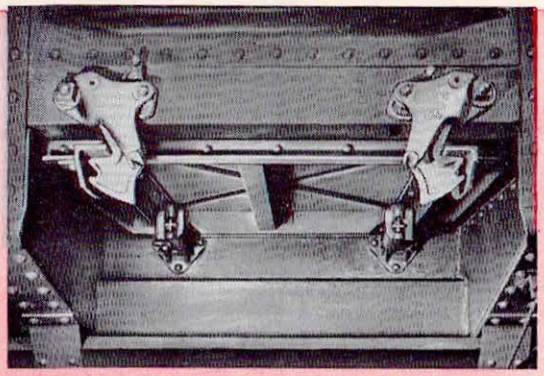
BRAKE BALANCERS

A comparatively simple method of equalizing forces and "balancing" the conventional brake arrangement by replacing the dead lever connection to the truck bolster with the Wine Balancer—connected to the car underframe. A bracket and connector at each end of the center sill flange, engaging the dead lever, balances the brake forces by returning them to the underframe of the car.



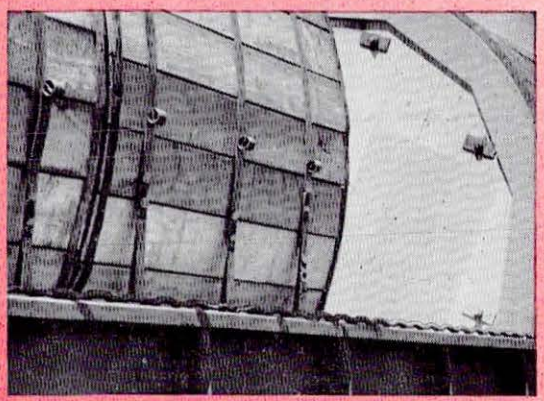
CORRELATED HOPPER UNITS

The one-piece, cast steel frame unitizes each individual hopper into a structurally sound, functional assembly which assures positive door fit. The adjustable locks, cast steel hinges, and symmetrical tapered door flange make possible the *only* adjustable door fit permitting compensation for wear or common irregularities of construction. "Balanced" unloading is assured by dual door operation and a method of controlled flow.



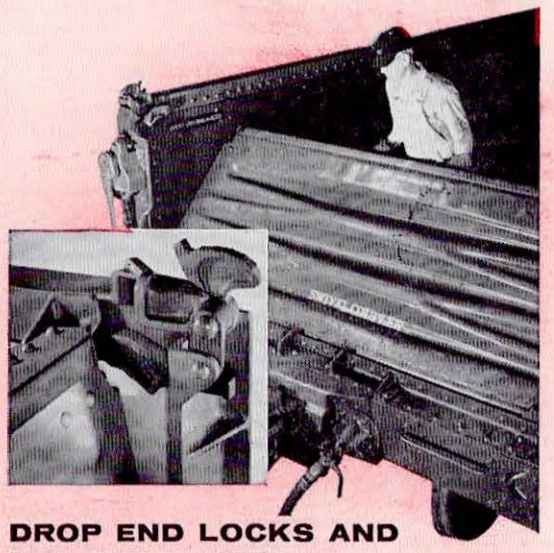
DROP BOTTOM SPRING HINGES AND ADJUSTABLE LOCKS

Drop Bottom Gondolas equipped with these two Wine products provide the shipper and receiver of the lading with a positive closure and afford a fast, economical one-man operation, with selective single or multiple opening of doors.



CONTINUOUS LADING BAND ANCHOR

Wine's continuous offset bar for top-coping applications provides a secure anchor for lading bands every 7½" of its entire length. Permits the use of all types of banding material.



DROP END LOCKS AND END BALANCERS

The *complete* drop end combination from operating and security standpoints! Interlocked corners provide rigidity to keep the sides from spreading under load. The balancer incorporates the hinge function . . . permits a one-man, time and labor saving closure.

UNIVERSAL LADING BAND ANCHORS

Easily applied on all flat cars and gondolas, the Wine Universal Type Anchor features 360° rotation for tie-ins from any direction. Versatility of use permits welding on coping at important locations as well as mounting in the floor. Drop flush when not in use.

ADJUSTABLE HOPPER DOOR LOCKS

The adjustment feature allows compensation for construction differences and readily permits adjustments necessitated by wear. Wine Adjustable Hopper Locks are adaptable to built-up, structural hopper openings as well as cast steel frames.

THE WINE RAILWAY APPLIANCE COMPANY

WINE®

DIVISION OF UNITCAST CORPORATION

TOLEDO 9, OHIO

As the Publisher Sees It . . .

The April 25 Railway Age carried a report on Europe's Railroads by W. Mason King, vice president (traffic) of the Southern. Although Mr. King's report was not complimentary, we carried it under his by-line—because Mr. King is a respected and knowledgeable railroadman. Since publication we have received some letters from railroaders commenting on Mr. King's observations.

My personal observation of the railways of Europe is so brief—except for those of Russia on which I spent nearly three weeks—that my more favorable impression may not be warranted. I do read everything about European railways that I can lay hands on, and the published record looks impressive. I would judge the railways of France, for example, to be among the most modern in the world. More important, where there are deficiencies they apparently are recognized and administrators seem to be working hard and fast to overcome them.

We will be very happy to hear from readers who have had an opportunity to observe current railroad conditions abroad, whether they concur or disagree with Mr. King.

Which reminds me to mention that the pages of this magazine are ALWAYS open to railroaders here or abroad who wish to air opinions germane to the industry. We like to hear from you and we know from our continuing readership studies that "Letters from Readers" is among the best read sections of the magazine.

Robert S. Lewis

TOFC Poses Claim Problems

The growth of piggyback and the development of mechanized accounting procedures are getting increased attention from railroad freight claim officers—the former raising new problems, the latter offering new ways to solve old problems.

John H. Andrews, Milwaukee Road general freight claim agent and chairman of the AAR Freight Claim Division, told the group last week that "the character of our business has changed sharply within a very short span." Referring specifically to TOFC, he noted that "this type of operation has and will continue to present problems to the Freight Claim Division, [in] prevention, claim settlement and distribution of claims among the carriers."

Mr. Andrews recommended that the division "give consideration for the future to more extensive use of data processing systems to reduce claim office handling expense and to the production of statistics which will highlight needs of correction. To best obtain full use of modern machines such as computers we need to use standardized forms which will facilitate key punch operation. And we should use a minimum, at least, of mandatory uniform practices."

William J. Quinn, Milwaukee president, hailed the work of the division and especially its self-contained "constitutional judicial system" for settling disputes arising over claims.

Mr. Quinn told the division's annual meeting in Chicago that "everyone on the railroad would be happy if there were no freight claims, but since we don't live in Utopia, the freight claim man is an indispensable individual. He must be a salesman, a detective, an operating man, and above all a diplomat. He must be familiar with all the details of railroading."

Appointee to ICC, Nixon Backer, Says He's Democrat

Timothy J. Murphy, Boston attorney who has been appointed to the ICC by President Eisenhower, last week identified himself as a Democrat, although he seconded Vice President Nixon's nomination at the 1956 Republican convention and supported the Eisenhower-Nixon ticket in the 1956 election.

Political identification was necessary because the Interstate Commerce Act requires that no more than six of the Commission's eleven members shall be of the same political party. The Commission already has six members who are Republicans.

Mr. Murphy appeared at a May 4 hearing before the Senate Committee on Interstate and Foreign Commerce, which is considering his nomination. Committee Chairman Magnuson, Democrat of Washington, put into the record a letter from Massachusetts' Republican senator, Leverett Saltonstall, who urged that the appointment be confirmed. The chairman also said the office of Massachusetts' Democratic Senator John F. Kennedy, had advised that Mr. Kennedy had no objection to confirmation.

Senator Pastore, Democrat of Rhode Island, said he wasn't disposed to get into the Republican-Democrat phase of the case. Democratic members of the House from Massachusetts have assured the senator that they have considered Mr. Murphy a Democrat.

Mr. Pastore, however, was interested in a personal suit Mr. Murphy brought against the New Haven and how that might affect his attitude toward that road. The appointee said he had dropped the suit. He also said his personal acquaintances and contacts among New Haven officers are such that he would withdraw from cases involving that road. The hearing was recessed until this week.

NYC-C&O-B&O Merger—'A Preliminary Look'

Whenever two or more railroad presidents get together these days, the talk usually turns to merger. Last week, "informal" talks by the chiefs of three big eastern roads—New York Central, Baltimore & Ohio and Chesapeake & Ohio—made one of the biggest "merger" stories of the year.

The NYC-B&O-C&O talks have progressed only slightly beyond the informal, telephone-conversation stage. A spokesman for one of the roads conceded that legal staffs were taking a preliminary look at the possibilities of a three-way merger.

B&O President Howard Simpson and C&O President Walter Tuohy confirmed that informal talks had been held. Mr. Tuohy, though, believed that any formal study was a year or two away. NYC President A. E. Perlman declined to comment.

There was some speculation that any formal study, if it does come, would involve only the C&O and B&O.

Word of the NYC-B&O-C&O talks came soon after Mr. Tuohy had told C&O shareowners that the road was looking at a "couple of merger possibilities," but so far had found no suitable candidate. Mr. Tuohy later noted that while talks with NYC and B&O were the most current, the C&O had also informally discussed merger possibilities with a dozen other roads. Among them: Chicago & North Western, Chicago & Eastern Illinois, Milwaukee, Erie, Delaware, Lackawanna & Western.

HF Sound Cleans RI Teleprinters

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Formerly, says C. J. Nelson, the road's assistant superintendent of communications, "to clean an entire teleprinter took one man an entire day of work. With the ultrasonic unit we can easily clean six a day. And they're far cleaner and brighter."

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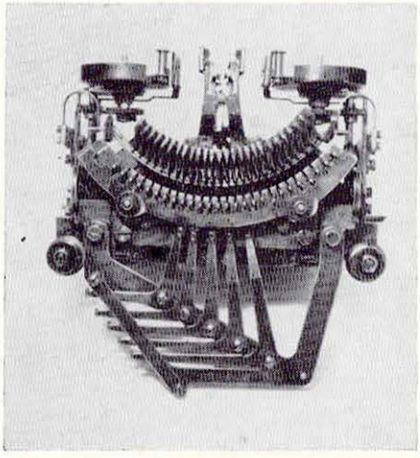
The sound used oscillates at 40,000 cycles a second. The cleaner consists of a generator control unit and a five-gallon stainless steel tank housing a transducer. The transducer transforms an oscillating electrical current from the generator into high frequency sound waves (40 kc). A solvent solution is used in the tank.

Cleaning takes place as the high-frequency sound waves create minute bubbles on the metal's surface while it is in the solvent. A building up and breaking down of the bubbles, called cavitation, produces the cleaning action.

One batch of the solution containing "Blast No. 3" commercial solvent can clean from two to six teleprinter "baskets" (the heart of the teletypewriter) before replacement. The baskets take about 10 to 20 minutes to clean, depending upon the quantity of dirt and grime.

The ultrasonic cleaner will be sent over the Rock Island system in the coming months to clean teletypewriter equipment at various offices. It is manufactured by the Narda Ultrasonics Corp., Westbury, Long Island, N.Y.

ULTRASONIC CLEANER consists of generator control (left) and 5-gallon steel tank housing a transducer that creates 40 kc sound.



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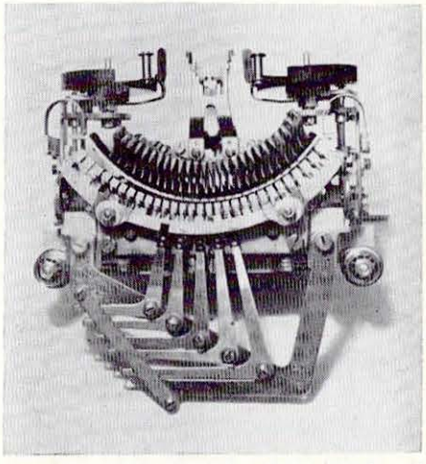

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PENNSYLVANIA.—John K. Murphy appointed director of public relations, Philadelphia. Abolished position of manager of community relations, formerly held by Mr. Murphy. **Cecil G. Muldoon,** manager public relations, Northern Region, Buffalo, N.Y., named manager public relations, New York Region, succeeding **Howard A. Gilbert,** advanced to assistant manager publicity, at system headquarters, Philadelphia.

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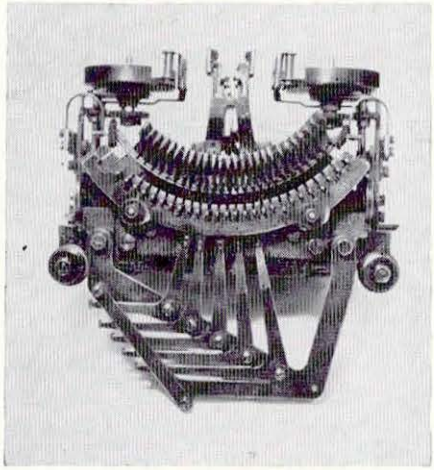

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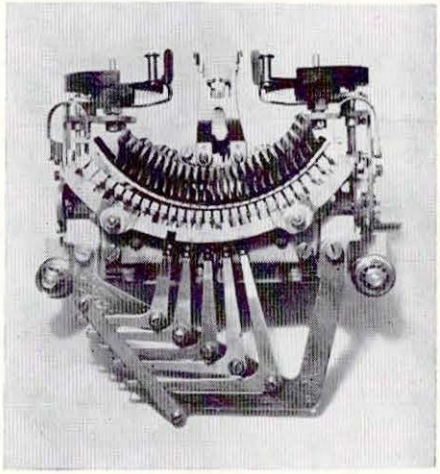

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TRRA Pre-Block Speeds Freight

► The Story at a Glance: Interchange time at the important St. Louis gateway has been slashed drastically. It's done by a pre-blocking system, which reduces handling time by more than two-thirds.

The pre-blocking is based upon cooperation between the Terminal Railroad Association of St. Louis and the line haul carriers it serves (see map on facing page). If certain specifications are met, the TRRA handles pre-blocked overhead traffic at less than the regular switching charge. This could save St. Louis railroads over $750,000 a year.

Speedier cross-country freight movement is being aided by an accelerated interchange service through the St. Louis gateway.

G. W. Maxwell, president of the Terminal Railroad Association of St. Louis, explained how line-to-line interchange time at the St. Louis gateway has been cut impressively:

"We have provided an incentive for line haul carriers to pre-block deliveries of revenue freight cars to TRRA. This drastically reduces—or eliminates entirely—the time consumed in switching these cars in Terminal yards."

Pre-blocking is essentially a timesaving plan. At St. Louis the added incentive of economy makes the plan doubly attractive. When a block of 15 or more revenue freight cars destined for one railroad at one interchange point is offered for interchange, the TRRA will perform the service at a special division less than the regular switching charge.

Mr. Maxwell emphasizes that use of the service is voluntary. "The incoming carrier," he says, "can call for the service at any time. The service may still be given on less than 15-car blocks but at a minimum service charge."

The speeded-up interchange service, put in operation in mid-January, has gained wide acceptance among railroads served by TRRA. Over half the Terminal's overhead traffic now moves in pre-block service. Records indicate the percentage is growing steadily. Despite bad weather, average time on Terminal rails of all cars in this service during February was only two hours and 13 minutes. The March average was two hours and 34 minutes.

Checks of interchange time in December, before the pre-block system was introduced, showed some line-to-line cars remained on TRRA rails up to 22 hours. The average was 16 hours.

With the interchange time on pre-blocked cars cut by more than two-thirds, and the service performed with savings in switching expense, shippers and carriers alike are enthusiastic about the future of the St. Louis gateway.

No Need for Diversion Now

For years, detention of cross-country traffic at St. Louis had caused diversion of through freight to competing gateways. Shippers and trunk lines decried the time-lag on overhead freight on TRRA rails. Because the TRRA handles the bulk of the switching at this important gateway, it received the blame for the costly and time-consuming delays. Now Terminal has turned a historical disadvantage to a competitive advantage.

The TRRA has an unusual position in U.S. railroading. It operates, under joint control of 15 major trunk lines, a 363-mile unified terminal facility which links the 22 railroads serving the vital St. Louis gateway. Straddling the Mississippi, it serves 400 on-track industries in Missouri and Illinois, as well as hundreds more at its 25 public delivery yards. It operates historic Union Station which handles over 70 passenger trains daily. Primarily, it is a freight switching line interchanging over a million revenue freight cars yearly.

It is on this overhead business that TRRA is concentrating in an all-out effort to improve service through the gateway. A Terminal superintendent is charged with the responsibility of expediting and coordinating pre-blocked interchange service. He also serves as a clearing house for all requests for the service. Incoming carriers may avail themselves of the accelerated service or, if they wish, may deliver miscellaneous blocks to Terminal for switching prior to interchange.

The service is completely voluntary, but most St. Louis roads are cooperating to help the time-saving plan put new life into the gateway. Some roads have regularly scheduled pre-blocked

(*Continued on page 34*)

Chicago Uses Several Speed-Up Plans

What's good for the goose is not necessarily good for the gander. The cure for interchange ills at St. Louis won't ease the headaches of Chicago, the nation's No. 1 gateway.

Chicago's complexity of direct interchanges and many intermediate switching lines doesn't lend itself to any easy, single solution to the problem of speeding up line-to-line interchange.

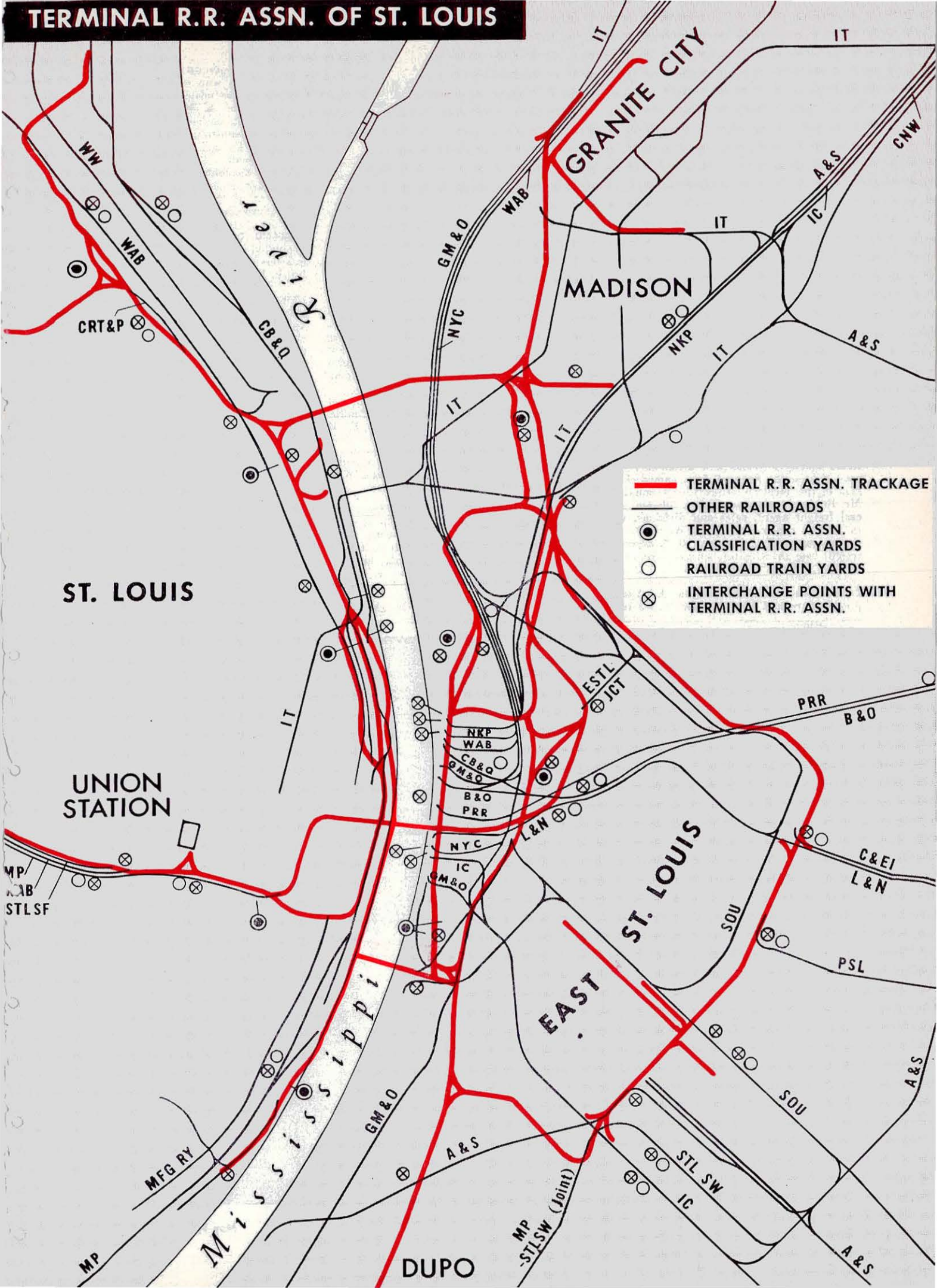
Individual lines, as a matter of operational efficiency, preclassify for direct Chicago connections at near east coast points for westbound traffic, and in the shadow of the Rockies for traffic headed towards the east.

Other speed-up plans to help movement through the Chicago gateway:

- Frequent service by intermediate lines timed to coincide with connecting outbound schedules.
- Later closing hours for certain high-rated overhead traffic when classified for connecting points.
- The establishment of a centralized, automated interchange bureau, utilizing a common language waybill. A committee of the General Managers Association of Chicago is looking into the feasibility of such a plan (RA, Nov. 16, 1959, p. 20).

An officer of one of the Chicago terminal roads disclaimed interest in the St. Louis pre-block plan because "the diversification and number of connections don't warrant it here."

Another switching line spokesman admitted having had the plan under study but added, "we're interested in making the right connections, not just getting the cars off our rails."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GRANITE CITY
MADISON
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EAST ST. LOUIS
DUPO
Mississippi River
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OTHER RAILROADS
TERMINAL R. R. ASSN. CLASSIFICATION YARDS
RAILROAD TRAIN YARDS
INTERCHANGE POINTS WITH TERMINAL R. R. ASSN.
IT
WW
WAB
CRT&P
CB&Q
GM&O
NYC
NKP
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CNW
IC
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RICHMOND, FREDERICKSBURG & POTOMAC.—Leland L. Miller, comptroller, retired May 1.

SANTA FE.—Julian N. Friedman, assistant signal engineer, Los Angeles, retired Apr. 30.

SEABOARD.—L. E. Morgan, assistant general freight agent, Mulberry, Fla., appointed assistant freight traffic manager, Tampa, and is succeeded by **L. A. Jones,** who will handle solicitation and service matters pertaining to the movement of phosphate rock. **H. S. Coltrain,** express traffic manager, Richmond, Va., appointed assistant to freight traffic manager there, succeeding Mr. Jones. **J. E. West** succeeds Mr. Coltrain. **C. S. Barrett,** division freight agent, Jacksonville, named assistant general freight agent there. **Jerry Smith,** industrial traffic agent, Charlotte, N.C., appointed general agent, Chattanooga, Tenn., succeeding **E. K. Kraemer,** named district freight agent, Charleston, S.C. Mr. Kraemer replaces **J. B. Bentley,** named division freight and passenger agent, Wilmington, N.C., succeeding **F. E. Wilson,** appointed assistant general freight agent, Tampa. **Guy Overstreet,** commercial agent, promoted to district freight agent, Richmond, succeeding **M. W. Thompson,** appointed assistant general freight agent, Miami.

H. R. Boyette, mechanical engineer, Richmond, appointed assistant to chief mechanical officer there, succeeding **S. J. Jarrell,** who retired May 1. **T. S. Cooke, Jr.** succeeds Mr. Boyette.

SOUTHERN PACIFIC.—Henry K. Koberstein appointed division engineer, Portland division, Portland, Ore., to succeed **C. T. Ray,** who retired Apr. 30. **James W. Lynch, Jr.** named assistant division engineer, Portland division, replacing **D. B. Zumwalt,** promoted to senior assistant division engineer, Portland division.

Frank M. Lalley, general eastern freight agent, New York, named traffic manager in charge of eastern territory, New York. **Joel Newman,** passenger traffic and public relations manager, New York, named general eastern agent in charge of the New York district. **G. V. McArt,** assistant to passenger traffic and public relations manager, **J. D. Howard** and **R. E. Wynkoop,** both assistant general agents, freight department, New York, all named assistant general eastern agents there. **J. E. Rausch,** assistant to freight traffic manager, New York, named assistant to traffic manager there.

TERMINAL RAILROAD ASSN. OF ST. LOUIS.—Arthur G. Harlan appointed signal supervisor, succeeding **J. E. Tendick,** retired.

TIDEWATER SOUTHERN.—Frank G. Lindee, sales representative, Western Pacific, Stockton, Cal., appointed district sales manager, TS, Modesto, Cal., succeeding **U. F. Bohne,** transferred to Washington, D.C. for the WP (RA, Apr. 11, p. 30).

Supply Trade

Clifton H. Sass, Jr. has been appointed manager—railroad sales for the **Okonite Co.** at Chicago. Mr. Sass was formerly manager—railroad sales of the Chicago district.

Joseph A. Russo, communications engineer, New York district, **New York Central,** has been appointed chief engineer of **Railroad Accessories Corp.**

William G. Miller has been elected a vice president of **ALCO Products, Inc.** Mr. Miller had been president of the firm's Canadian affiliate, Montreal Locomotive Works, Ltd. He will reorganize the company's foreign sales department.

Frank J. Woods has been appointed director of sales for **Allied Chemical's General Chemical Division.** Mr. Woods was formerly heavy chemical sales manager, New York.

Philip A. Scheuble, Jr. has been elected a vice president of **Vapor Heating Corp.** He will continue as general manager of the Vap-Air division. **W. D. Fischer,** formerly an audit manager at **Price, Waterhouse & Co.,** has been appointed controller of Vapor Heating. **E. B. Moore,** market liaison engineer, has been appointed publicity director, Chicago.

W. K. Durbon, vice president of **Waugh Equipment Co.,** has been appointed sales manager of the newly formed Cushion Underframe Division of the company, with headquarters at Chicago. **F. A. Bussman,** Waugh service man, also has been assigned to the Underframe Division as assistant to Mr. Durbon, operating out of Pittsburgh.

Thomas M. Peel has been appointed eastern sales representative at New York of **Pullman-Standard division of Pullman Inc.** and **Transport Leasing Co.,** a newly-formed subsidiary of the corporation. Mr. Peel was formerly general eastern agent of the **Clinchfield.**

OBITUARY

Thomas D. Slattery, 64, who retired in 1956 as resident vice president and general traffic manager of the **British & Irish Railways** in New York, died May 3 in Cleveleys, Lancashire, England.

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Freight Operating Statistics of Large Railroads—Selected Items

Region, Road and Year		Miles of road operated	Train miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (thousands)	Car Miles: Per cent loaded	Ton-miles (thousands): Gross excl.locos & tenders	Ton-miles (thousands): Net rev. and non-rev	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region													
Boston & Maine	1960	1,546	223,079	223,494	2,931	8,058	58.7	593,124	232,164	83	..	22	21.0
	1959	1,559	215,290	216,420	4,942	7,919	59.4	572,455	225,029	68	12	19	19.2
N. Y., N. H. & Hartfd	1960	1,739	248,111	249,523	16,328	8,972	62.0	606,551	240,596	63	..	12	16.0
	1959	1,739	232,898	232,898	15,376	8,910	61.5	601,232	234,843	67	..	20	23.0
Great Lakes Region													
Delaware & Hudson	1960	763	168,510	171,025	2,455	8,030	62.2	594,715	295,773	30	..	6	16.7
	1959	764	163,971	166,670	2,999	7,851	60.6	588,226	291,315	35	..	3	7.9
Del., Lack. & Western	1960	941	233,142	240,610	13,307	9,976	64.5	701,495	300,266	57	..	7	10.9
	1959	918	241,968	246,668	12,021	9,463	61.0	674,993	277,651	55	..	8	12.7
Erie	1960	2,239	546,856	549,528	13,466	28,557	65.8	1,875,705	741,993	168	..	6	3.4
	1959	2,201	502,723	505,237	13,315	26,343	66.7	1,679,222	659,497	172	..	2	1.1
Grand Trunk Western	1960	951	204,009	205,130	2,010	6,811	57.8	499,790	194,149	45	7	17	24.6
	1959	951	209,928	210,790	1,416	6,898	59.3	504,357	195,009	45	15	23	27.7
Lehigh Valley	1960	1,114	192,689	195,061	4,939	8,255	63.6	587,251	269,757	30	..	4	11.8
	1959	1,116	188,288	191,308	3,578	7,692	63.3	539,844	242,870	30	..	4	11.8
New York Central	1960	10,310	2,036,253	2,044,844	89,382	85,616	56.6	6,877,988	2,891,419	408	..	46	10.1
	1959	10,447	2,065,901	2,075,021	86,488	79,042	55.7	6,067,943	2,645,504	461	1	48	9.4
New York, Chic. & St. L.	1960	2,155	624,906	624,906	5,495	28,014	62.2	2,071,546	903,893	105	26	9	6.4
	1959	2,155	603,775	603,775	4,650	25,016	61.0	1,831,478	781,499	97	31	8	5.9
Pitts. & Lake Erie	1960	220	61,999	61,999	....	2,500	62.4	234,193	137,576	17	..	..	..
	1959	221	55,427	55,427	....	2,040	61.5	190,491	117,416	14	..	2	12.5
Wabash	1960	2,400	400,862	401,741	4,301	19,289	63.4	1,342,862	542,090	112	..	3	2.6
	1959	2,379	470,573	471,998	4,287	18,770	62.3	1,302,986	514,801	110	..	4	3.5
Central Eastern Region													
Baltimore & Ohio	1960	5,795	1,367,715	1,458,540	94,649	59,690	57.7	4,763,336	2,237,423	375	40	32	7.2
	1959	5,802	1,237,504	1,322,174	85,013	47,901	55.8	4,144,851	1,944,302	407	78	17	3.4
Bessemer & Lake Erie	1960	203	40,305	40,950	55	1,550	64.7	160,543	99,634	11	1	..	..
	1959	203	35,154	35,582	10	923	56.0	94,725	52,672	10	3	..	..
Central RR Co. of New Jersey	1960	596	105,287	106,615	4,840	4,124	62.2	332,903	176,628	62	2	4	5.9
	1959	597	113,516	114,980	5,834	3,858	60.1	311,075	162,239	67	..	2	2.9
Chicago & Eastern Ill.	1960	863	106,373	106,373	2,730	5,556	61.0	437,530	216,338	27	..	5	15.6
	1959	863	115,456	115,456	2,723	4,634	61.9	362,120	179,928	25	..	3	10.7
Elgin, Joliet & Eastern	1960	205	70,578	72,158	....	2,386	59.1	207,175	111,552	42	..	1	2.3
	1959	205	62,938	64,045	....	2,071	58.7	175,818	93,332	40	2	2	4.5
Pennsylvania System	1960	9,839	2,656,573	2,781,862	167,836	111,186	60.4	8,589,956	3,925,392	687	..	71	9.4
	1959	9,865	2,506,533	2,638,402	171,271	98,967	60.1	7,488,184	3,324,053	662	8	116	14.8
Reading	1960	1,302	313,541	315,222	9,120	11,991	57.9	1,071,705	569,178	143	5	16	9.8
	1959	1,302	287,285	288,615	10,076	10,521	57.0	884,260	440,624	157	8	21	11.3
Western Maryland	1960	843	143,478	149,052	8,905	6,348	63.3	569,413	324,115	43	..	1	2.3
	1959	844	144,376	149,300	7,774	5,780	58.7	523,750	293,292	42	2	1	2.2
Pocahontas Region													
Chesapeake & Ohio	1960	5,060	1,152,541	1,153,825	19,963	53,391	55.5	4,763,213	2,610,216	576	..	52	8.3
	1959	5,061	1,181,174	1,184,438	20,779	51,777	53.6	4,689,704	2,540,281	594	..	18	2.9
Norfolk & Western*	1960	2,722	749,040	763,495	26,852	38,371	54.1	3,814,213	2,067,905	198	17	8	3.6
	1959	2,724	740,146	773,040	45,033	36,128	55.0	3,524,839	1,922,743	233	24	18	6.5
Rich., Fred. & Potomac	1960	110	39,997	39,987	818	2,538	62.8	179,055	75,626	14	..	1	6.7
	1959	110	39,286	39,286	822	2,383	59.1	167,236	63,828	15	..	..	..
Southern Region													
Atlantic Coast Line	1960	5,563	713,762	713,762	7,669	26,957	58.0	2,104,861	968,143	127	..	1	.8
	1959	5,609	728,936	728,936	7,086	25,978	56.8	2,022,955	898,063	132	..	3	2.2
Central of Georgia	1960	1,712	179,590	179,590	2,245	7,423	63.8	564,176	274,729	32	..	2	5.9
	1959	1,730	193,311	193,311	1,793	7,489	63.0	575,592	278,963	32	..	3	8.6
Florida East Coast	1960	572	116,691	116,691	....	3,738	53.0	287,362	100,977	47	7	..	..
	1959	572	129,161	129,161	....	4,184	53.7	322,276	111,381	53	..	..	..
Gulf, Mobile & Ohio	1960	2,717	258,932	258,932	....	13,782	66.1	984,282	468,826	88	..	3	3.3
	1959	2,717	260,874	260,874	....	14,002	66.7	995,792	480,050	82	..	9	9.9
Illinois Central	1960	6,500	975,012	975,012	25,534	44,199	61.2	3,289,568	1,526,249	169	11	137	43.2
	1959	6,439	1,015,990	1,015,990	27,601	43,568	60.1	3,267,230	1,496,642	191	33	152	40.4
Louisville & Nashville	1960	5,666	932,890	935,794	16,073	37,141	60.0	2,990,833	1,481,523	170	..	4	2.3
	1959	5,680	917,580	919,476	16,157	35,486	58.8	2,832,353	1,389,984	159	..	4	2.5
Seaboard Air Line	1960	4,134	605,372	605,372	1,813	25,383	59.0	1,995,481	918,683	123	..	4	3.1
	1959	4,135	611,597	611,597	1,638	24,631	57.5	1,960,222	870,058	129	..	4	3.0
Southern	1960	6,242	853,407	853,537	8,568	40,771	62.8	2,888,493	1,341,943	197	7	8	3.8
	1959	6,243	843,603	843,795	8,359	39,006	63.2	2,715,643	1,245,593	193	1	2	1.0
Northwestern Region													
Chicago & North Western	1960	9,244	772,285	772,285	9,204	29,220	60.2	2,135,121	905,820	175	..	24	12.1
	1959	9,289	800,952	801,039	8,279	29,154	60.0	2,139,792	880,136	159	..	17	9.7
Chicago Great Western	1960	1,437	134,605	134,605	246	6,144	62.3	446,584	200,024	25	..	2	7.4
	1959	1,437	135,462	135,462	175	6,439	63.8	460,828	209,191	25	..	1	3.8
Chic., Milw., St. P. & Pac.	1960	10,591	778,816	785,546	8,483	30,055	63.2	2,485,621	1,091,079	157	20	4	2.2
	1959	10,583	846,951	858,489	13,705	36,193	61.6	2,573,563	1,128,964	280	13	12	3.9
Duluth, Missabe & Iron Range	1960	575	29,058	29,065	107	675	52.1	56,554	27,804	30	40	11	13.6
	1959	557	27,272	27,316	218	519	48.1	40,184	17,068	20	25	15	25.0
Great Northern	1960	8,276	879,842	883,795	19,346	35,554	67.1	2,519,539	1,163,616	280	9	11	3.7
	1959	8,281	930,409	933,127	22,786	35,524	66.0	2,549,454	1,182,888	277	6	9	3.1
Minn., St. P. & S. Ste. Marie	1960	4,169	338,762	339,696	458	11,559	64.7	803,183	367,389	92	6	3	3.0
	1959	4,169	357,605	358,207	879	11,509	63.6	810,212	360,007	85	8	2	2.1
Northern Pacific	1960	6,533	746,527	753,384	10,884	31,340	65.3	2,162,373	964,849	233	9	5	2.0
	1959	6,533	747,967	753,963	9,827	30,341	67.5	2,051,269	927,981	226	11	7	2.9
Spokane, Portland & Seattle	1960	936	136,966	136,966	1,078	5,566	73.0	380,376	185,412	52	..	1	1.9
	1959	935	135,349	135,349	1,239	5,639	72.3	384,133	185,622	54	..	1	1.8
Central Western Region													
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1960	12,970	2,532,951	2,680,770	50,065	109,679	63.3	7,961,282	3,125,948	622	4	41	6.1
	1959	13,104	2,326,182	2,477,382	54,516	103,946	62.4	7,528,453	2,908,519	581	7	100	14.5
Chic., Burl. & Quincy	1960	8,637	1,006,567	1,005,825	22,988	41,598	62.3	2,938,154	1,258,634	136	5	78	35.6
	1959	8,653	1,065,442	1,063,751	32,149	43,990	64.3	3,081,153	1,365,958	136	10	80	35.4
Chic., Rock I. & Pac.	1960	7,508	906,121	910,314	1,672	38,426	61.5	2,838,087	1,163,045	188	..	6	3.1
	1959	7,548	1,020,210	1,019,727	2,089	39,528	61.9	2,889,903	1,217,973	178	..	8	4.3
Denver & R. G. Western	1960	2,128	291,168	308,936	28,508	12,896	71.5	927,233	457,456	79	3	9	9.9
	1959	2,155	277,554	293,438	28,116	12,353	72.9	864,669	431,377	78	10	7	7.4
Southern Pacific	1960	8,010	2,001,592	2,081,901	129,035	92,148	64.8	6,321,862	2,760,268	706	32	35	4.5
	1959	8,014	1,967,020	2,035,483	109,999	90,538	64.4	6,244,529	2,602,576	630	6	51	7.4
Union Pacific	1960	9,742	1,998,467	2,021,176	51,561	94,373	64.9	6,524,243	2,822,159	356	30	80	17.2
	1959	9,751	2,065,505	2,098,456	63,331	93,899	62.7	6,603,046	2,782,412	328	29	108	23.2
Western Pacific	1960	1,188	253,436	259,274	23,789	9,492	68.6	654,509	301,360	49	..	4	7.5
	1959	1,189	222,419	226,177	23,454	8,784	68.8	598,044	273,436	43	2	1	2.2
Southwestern Region													
Kansas City Southern	1960	886	125,701	125,709	53	8,012	65.3	604,492	281,964	21	..	1	4.5
	1959	886	143,807	143,836	122	8,428	66.7	630,645	297,957	23	..	1	4.2
Louisiana & Arkansas	1960	746	76,870	76,870	....	4,012	64.3	318,041	153,359	19	..	..	..
	1959	746	69,707	69,707	113	3,651	64.9	285,915	137,219	18	..	..	..
Mo.-Kans.-Texas Lines	1960	2,916	221,015	221,015	2,119	9,342	58.5	726,260	311,549	55	..	4	6.8
	1959	2,914	209,607	209,607	1,945	10,002	62.4	739,569	330,816	62	..	3	4.6
Missouri Pacific	1960	9,413	1,179,455	1,179,455	8,454	55,073	63.6	3,930,717	1,732,523	216	4	12	5.2
	1959	9,513	1,142,501	1,142,501	8,571	51,506	62.4	3,757,641	1,682,598	222	8	20	8.0
St. Louis-San Francisco	1960	4,527	594,552	594,552	6,216	23,772	67.5	1,621,399	759,315	95	..	8	7.8
	1959	4,541	582,080	582,080	5,981	22,772	66.3	1,558,213	717,342	89	..	11	11.0
St. Louis Southw. Lines	1960	1,554	358,367	358,367	4,528	16,894	68.6	1,093,191	488,672	50	..	1	2.0
	1959	1,544	341,432	341,432	4,029	15,638	66.4	987,863	441,588	47	..	1	2.1
Texas & New Orleans	1960	4,080	590,274	590,274	71	27,575	65.2	1,945,729	863,815	141	..	..	..
	1959	4,154	637,142	637,142	629	27,636	62.2	2,020,873	881,044	141	..	1	.7
Texas & Pacific	1960	1,819	294,188	294,188	2,836	13,927	62.0	1,040,830	395,561	36	..	2	5.3
	1959	1,822	315,003	315,003	2,948	14,634	58.0	1,136,406	414,666	37	..	1	2.6

For the Month of January 1960 Compared with January 1959

Region	Road	Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. exc.locos and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng.	Boston & Maine	1960	2,177	8,032	10,209	3.5	41,454	2,666	1,043	28.8	731	43.2	4,843	15.6	76.2
		1959	2,558	6,575	9,133	3.7	42,117	2,663	1,047	28.4	754	44.7	4,656	15.8	79.4
	N. Y., N. H. & Hartfd	1960	4,180	13,529	17,709	8.1	39,221	2,445	970	26.8	439	26.4	4,463	16.0	136.7
		1959	3,133	11,211	14,344	5.1	41,775	2,582	1,008	26.4	519	32.0	4,356	16.2	109.0
Great Lakes	Delaware & Hudson	1960	4,627	5,124	9,751	7.0	64,763	3,548	1,765	36.8	1,181	51.5	12,505	18.4	169.4
		1959	5,392	5,605	10,997	9.4	65,308	3,607	1,786	37.1	875	38.9	12,300	18.2	158.5
	Del., Lack. & Western	1960	5,746	9,162	14,908	10.9	56,981	3,043	1,302	30.1	665	34.3	10,293	18.9	140.1
		1959	6,577	8,193	14,770	8.7	51,819	2,826	1,162	29.3	582	32.5	9,757	18.6	144.8
	Erie	1960	10,839	16,078	26,917	8.5	73,073	3,461	1,369	26.0	920	53.8	10,690	21.3	114.7
		1959	11,952	13,152	25,104	8.5	68,652	3,377	1,326	25.0	856	51.2	9,666	20.6	108.1
	Grand Trunk Western	1960	5,052	7,351	12,403	5.6	54,730	2,458	955	28.5	509	30.9	6,586	22.3	104.4
		1959	5,132	7,788	12,920	6.8	50,045	2,420	936	28.3	479	28.6	6,615	20.8	89.9
	Lehigh Valley	1960	6,012	8,974	14,986	10.3	64,230	3,076	1,413	32.7	572	27.5	7,811	21.1	208.2
		1959	6,900	7,837	14,737	10.9	60,143	2,890	1,300	31.6	531	26.6	7,020	21.0	202.9
	New York Central	1960	61,048	74,630	135,678	8.6	60,149	3,409	1,433	33.8	704	36.8	9,047	17.8	169.0
		1959	69,547	63,183	132,730	9.9	50,836	2,968	1,294	33.5	639	34.3	8,169	17.3	156.3
	New York, Chic. & St. L.	1960	9,200	16,026	25,226	14.2	62,753	3,353	1,463	32.3	1,161	57.9	13,530	18.9	160.8
		1950	11,404	13,226	24,630	14.9	55,496	3,068	1,309	31.2	1,056	55.5	11,698	18.3	160.6
	Pitts. & Lake Erie	1960	4,855	7,042	11,897	4.9	59,125	3,786	2,224	55.0	383	11.1	20,172	15.7	125.7
		1959	10,210	3,389	13,599	8.8	56,292	3,460	2,133	57.6	296	8.4	17,139	16.4	126.8
	Wabash	1960	10,061	6,802	16,863	12.0	83,134	3,361	1,357	28.1	1,041	58.4	7,286	24.8	118.6
		1950	10,759	8,018	18,777	7.1	66,567	2,780	1,099	27.4	876	51.3	6,980	24.0	143.0
Central Eastern	Baltimore & Ohio	1960	59,180	42,464	101,644	13.2	56,026	3,527	1,657	37.5	712	32.9	12,455	16.1	114.6
		1959	63,508	38,752	102,260	15.4	53,120	3,391	1,591	40.6	631	27.8	10,810	15.9	94.7
	Bessemer & Lake Erie	1960	4,242	1,221	5,463	9.2	58,893	4,259	2,643	64.3	592	14.3	15,832	14.8	138.8
		1959	4,790	453	5,243	13.2	43,432	2,839	1,578	57.1	325	10.2	8,370	16.1	104.4
	Central RR Co. of New Jersey	1960	4,390	10,307	14,697	19.3	47,955	3,291	1,746	42.8	389	14.6	9,560	15.2	73.8
		1959	4,138	6,900	11,038	17.9	41,549	2,898	1,511	42.1	424	16.8	8,766	15.2	79.5
	Chicago & Eastern Ill.	1960	3,248	2,661	5,909	17.1	79,191	4,148	2,051	38.9	1,161	48.9	8,086	19.3	112.9
		1959	2,525	2,616	5,141	11.6	56,405	3,157	1,568	38.8	1,083	45.0	6,726	18.0	141.4
	Elgin, Joliet & Eastern	1960	7,507	8,781	16,288	4.1	21,123	3,042	1,638	46.8	223	8.1	17,553	7.2	77.1
		1959	8,322	7,964	16,286	5.9	18,441	2,925	1,553	45.1	191	7.2	14,686	6.6	66.9
	Pennsylvania System	1960	100,478	95,221	195,699	11.3	56,325	3,323	1,518	35.3	652	30.6	12,870	17.4	135.9
		1959	135,538	66,572	202,110	21.9	52,333	3,067	1,362	33.6	531	26.3	10,869	17.5	125.3
	Reading	1960	15,884	15,704	31,588	18.7	54,075	3,414	1,813	47.5	574	20.9	14,102	15.8	74.0
		1959	20,896	14,909	35,805	22.9	48,415	3,078	1,534	41.9	398	16.7	10,917	15.7	64.1
	Western Maryland	1960	6,951	2,531	9,482	5.1	58,234	4,036	2,297	51.1	1,074	33.2	12,403	14.7	127.6
		1959	7,326	2,658	9,984	2.8	54,723	3,706	2,075	50.7	868	29.1	11,210	15.1	123.7
Pocahontas	Chesapeake & Ohio	1960	60,835	24,879	85,714	4.3	76,629	4,151	2,275	48.9	955	35.2	16,640	18.5	65.2
		1959	61,480	23,429	84,909	6.7	72,722	3,991	2,162	49.1	930	35.4	16,191	18.3	69.4
	Norfolk & Western*	1960	53,501	7,318	60,819	3.4	91,299	5,208	2,823	53.9	1,071	36.7	24,506	17.9	127.0
		1959	55,489	9,768	65,257	5.1	82,896	4,887	2,666	53.2	913	31.2	22,769	17.4	103.3
	Rich., Fred. & Potomac	1960	96	1,083	1,179	2.1	112,120	4,485	1,894	29.8	2,382	127.4	22,178	25.0	91.5
		1959	139	1,230	1,369	1.4	92,600	4,263	1,627	26.8	1,748	110.5	18,718	21.8	90.9
Southern	Atlantic Coast Line	1960	19,238	16,652	35,890	5.4	51,219	2,958	1,361	35.9	843	40.4	5,614	17.4	206.4
		1959	22,178	16,260	38,438	3.7	49,355	2,788	1,238	34.6	761	38.8	6,165	17.8	197.0
	Central of Georgia	1960	3,681	4,986	8,667	3.4	54,945	3,147	1,532	37.0	1,006	42.6	5,177	17.5	191.7
		1959	4,160	5,050	9,210	3.2	52,398	2,981	1,445	37.2	1,016	43.3	5,202	17.6	197.5
	Florida East Coast	1960	658	3,746	4,404	.4	42,490	2,463	865	27.0	690	48.2	5,695	17.3	77.2
		1959	799	4,758	5,557	.6	41,914	2,504	865	26.6	634	44.3	6,281	16.8	86.4
	Gulf, Mobile & Ohio	1960	7,240	9,221	16,461	6.4	77,084	3,803	1,812	34.0	925	41.1	5,566	20.3	99.0
		1959	7,558	8,399	15,957	5.8	73,166	3,818	1,841	34.3	961	42.0	5,699	19.2	99.8
	Illinois Central	1960	27,201	21,216	48,417	3.1	62,535	3,399	1,577	34.5	1,028	48.6	7,574	18.5	107.6
		1959	28,118	21,429	49,547	3.9	57,698	3,248	1,488	34.4	967	46.9	7,498	17.9	94.1
	Louisville & Nashville	1960	35,014	19,488	54,502	10.0	57,539	3,214	1,592	39.9	869	36.3	8,345	17.9	195.0
		1959	36,332	17,634	53,966	7.0	54,026	3,093	1,518	39.2	815	35.4	7,894	17.5	201.7
	Seaboard Air Line	1960	16,608	14,001	30,609	2.8	60,871	3,349	1,542	36.2	965	45.2	7,169	18.5	181.4
		1959	18,957	11,284	30,241	2.8	59,829	3,263	1,448	35.3	928	45.7	6,788	18.7	175.2
	Southern	1960	21,147	32,685	53,832	3.5	57,749	3,390	1,575	32.9	831	40.2	6,935	17.1	148.3
		1959	21,616	28,864	50,480	4.7	58,128	3,221	1,477	31.9	804	39.9	6,436	18.1	155.4
Northwestern	Chicago & North Western	1960	21,519	25,051	46,570	7.2	47,165	2,773	1,176	31.0	628	33.6	3,161	17.1	144.0
		1959	21,997	28,021	50,018	4.4	49,166	2,687	1,105	30.2	577	31.0	3,056	18.4	156.0
	Chicago Great Western	1960	2,529	2,647	5,176	4.6	63,264	3,326	1,490	32.6	1,116	55.0	4,490	19.1	172.9
		1959	2,204	3,656	5,860	4.1	65,786	3,404	1,545	32.5	1,123	54.2	4,696	19.3	179.7
	Chic., Milw., St. P. & Pac.	1960	28,188	19,814	48,002	5.5	65,620	3,201	1,405	31.1	725	36.8	3,323	20.6	150.2
		1959	31,734	26,995	58,729	3.5	60,161	3,046	1,336	31.2	623	32.4	3,441	19.8	99.5
	Duluth, Missabe & Iron Range	1960	12,184	905	13,089	1.5	30,210	2,053	1,009	41.2	68	3.1	1,560	15.5	14.1
		1959	14,034	764	14,798	4.3	23,763	1,525	648	32.9	37	2.4	988	16.1	16.1
	Great Northern	1960	23,971	14,945	38,916	3.4	61,664	2,890	1,335	32.7	953	43.4	4,536	21.5	107.5
		1959	24,615	17,155	41,770	2.8	56,993	2,761	1,281	33.3	893	40.6	4,608	20.8	117.1
	Minn., St. P. & S. Ste. Marie	1960	6,906	6,142	13,048	7.0	46,981	2,377	1,087	31.8	872	42.4	2,843	19.8	120.2
		1959	7,414	6,113	13,527	6.9	44,493	2,274	1,011	31.3	869	43.7	2,786	19.6	130.7
	Northern Pacific	1960	20,174	12,890	33,064	3.0	62,621	2,901	1,294	30.8	916	45.6	4,764	21.6	106.3
		1959	19,708	12,286	31,994	2.9	59,713	2,747	1,243	30.6	903	43.7	4,582	21.8	107.6
	Spokane, Portland & Seattle	1960	1,587	3,742	5,329	2.6	41,281	2,787	1,358	33.3	1,122	46.2	6,390	14.9	91.9
		1959	1,734	3,868	5,602	2.5	45,395	2,852	1,378	32.9	1,116	46.9	6,404	16.0	90.3
Central Western	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1960	54,655	28,200	82,855	3.9	81,272	3,156	1,239	28.5	1,203	66.7	7,775	25.9	139.2
		1959	52,920	27,258	80,178	8.5	79,083	3,245	1,254	28.0	1,128	64.6	7,160	24.4	126.4
	Chic., Burl. & Quincy	1960	26,203	17,704	43,907	4.1	66,293	2,937	1,258	30.3	922	48.9	4,701	22.7	159.7
		1959	24,802	22,701	47,503	3.5	63,031	2,898	1,285	31.1	912	45.7	5,092	21.8	167.9
	Chic., Rock I. & Pac.	1960	15,535	19,954	35,489	4.9	67,551	3,138	1,286	30.3	1,048	56.3	4,997	21.6	162.7
		1959	16,672	25,398	42,070	4.5	60,233	2,841	1,197	30.8	955	50.1	5,205	21.3	189.2
	Denver & R. G. Western	1960	8,011	6,576	14,587	5.4	65,845	3,194	1,576	35.5	1,019	40.1	6,935	20.7	122.0
		1959	8,131	5,358	13,489	5.5	65,565	3,127	1,560	34.9	1,034	40.6	6,457	21.0	114.2
	Southern Pacific	1960	34,054	38,057	72,111	2.1	72,543	3,191	1,393	30.0	1,207	62.2	11,116	23.0	99.3
		1959	34,543	32,284	66,827	2.3	69,690	3,209	1,337	28.7	1,219	65.9	10,476	22.0	110.6
	Union Pacific	1960	34,012	29,678	63,690	2.3	91,046	3,291	1,424	29.9	1,420	73.2	9,345	27.9	149.1
		1959	33,896	30,320	64,216	1.7	87,697	3,223	1,358	29.6	1,360	73.3	9,205	27.4	152.7
	Western Pacific	1960	2,720	2,464	5,184	3.8	74,673	2,605	1,199	31.7	1,966	90.3	8,183	28.9	176.1
		1959	2,772	2,595	5,367	2.0	75,103	2,704	1,236	31.1	1,606	75.0	7,418	27.9	178.4
Southwestern	Kansas City Southern	1960	2,177	5,603	7,780	6.0	100,481	4,822	2,249	35.2	1,174	51.1	10,266	20.9	210.1
		1959	2,892	4,948	7,840	6.2	95,886	4,450	2,102	35.4	1,240	52.6	10,848	21.9	213.7
	Louisiana & Arkansas	1960	1,797	3,384	5,181	6.8	82,910	4,194	2,023	38.2	960	39.1	6,631	20.0	165.8
		1959	2,227	2,879	5,106	7.0	83,067	4,105	1,970	37.6	872	35.8	5,934	20.3	170.2
	Mo.-Kans.-Texas Lines	1960	5,524	5,678	11,202	9.4	59,050	3,292	1,412	33.3	908	46.5	3,446	18.0	135.3
		1959	5,638	7,564	13,202	8.2	61,852	3,537	1,582	33.1	858	41.6	3,662	17.5	107.7
	Missouri Pacific	1960	25,500	19,611	45,111	6.3	73,555	3,346	1,475	31.5	1,230	61.5	5,937	22.1	179.4
		1959	24,422	18,927	43,349	8.8	70,082	3,307	1,481	32.7	1,232	60.5	5,706	21.3	165.5
	St. Louis-San Francisco	1960	10,431	11,645	22,076	1.5	59,190	2,740	1,283	31.9	1,128	52.3	5,411	21.7	201.8
		1959	13,165	10,432	23,597	1.6	57,281	2,689	1,238	31.5	1,013	48.5	5,096	21.4	195.5
	St. Louis Southw. Lines	1960	2,215	3,463	5,678	4.2	79,882	3,056	1,366	28.9	2,773	139.8	10,144	26.2	241.3
		1959	2,708	4,392	7,100	3.4	71,018	2,899	1,296	28.2	2,049	109.2	9,167	24.5	234.7
	Texas & New Orleans	1960	6,809	13,658	20,467	2.3	83,354	3,313	1,471	31.3	1,388	68.0	6,830	25.3	142.7
		1959	7,059	13,812	20,871	1.6	77,144	3,189	1,390	31.9	1,367	69.0	6,842	24.3	153.4
	Texas & Pacific	1960	3,556	5,782	9,338	4.2	84,510	3,552	1,350	28.4	1,382	78.4	7,015	23.9	260.3
		1959	3,680	5,703	9,383	4.4	79,358	3,632	1,325	28.3	1,404	85.4	7,342	22.0	280.7

* Includes operations of Virginian Ry. Co., merged into Norfolk & Western Ry. Co., December 1, 1959.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Why 'Gradual,' Mr. Mitchell?

Under a system of free markets and free enterprise, the relative earnings that companies and industries are able to attain serve as a signal system to control the direction of the nation's economic progress and growth. Relative earnings —if they are high—single out the companies and industries which should be expanding. And such expansion takes place automatically, because investors are eager to put their money into high-earning companies and industries. Conversely, poor earnings set a red signal against continued investments where the return is meager.

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In countries which do not have free markets (such as Russia, for example), the allocating of investment capital among various industries is done by government. The officials who do the allocating may be skillful or not—but no matter how skillful they are, they could not possibly hope to measure exactly what industries and products, if increased, will best satisfy the maximum of people's wants. The free market is the most efficient allocator of capital funds ever invented.

But the trouble with earnings as an indicator of where new capital ought to be going—to satisfy the maximum of public wants at least cost —is that, if the free market is monkeyed with politically, the signal system will give a false indication. This signal system has for a good many years been giving a false indication against investment in railroads.

For example, the annual compilation by the First National City Bank of New York of industry earnings, in ratio to net assets, shows Class I railroads in 1959 with a return of 3.4% on such assets. This is the lowest rate of return of any industry in the bank's tabulation. The manufacturing industry earned 11.6% and public utilities 10.1%. Disproportionately low earnings by railroads have been shown for several decades in this annual tabulation.

Such earnings say, in effect, to the investor: Don't put your money into railroads. Put it into manufacturing and utilities. Or put it into "miscellaneous transportation" (which earned 13% in 1959) or air transportation (which earned 9.6%).

The trouble with the signals, thus set at danger against railroad investments, is that *they do not reflect the true relative economics of railroading* —but are distorted by political monkeying around to the railroads' disadvantage. Specifically: Heavy expenditures of public funds on highways, inland waterway and air transportation facilities (which are not paid for in full by the users) depress railroad earnings arbitrarily, while they give a false-clear indication, encouraging increased investments in highway, waterway and air transportation.

Another red signal (not of free market origin) is set against the inflow of investment funds for railroad improvements by working rules which establish 100 miles as a day's pay in railroading, whereas truck drivers do 200 miles or more. And this is just one example of many such restrictions.

The sum-total effect of the non-economic factors—which are beclouding and falsifying the inherent economy of railroad service—is the present critical situation of the railroads. Here we have the railroads, as a whole, down to a bare subsistence level of earnings at a time of general prosperity, with some major companies actually operating in the red. Where will the industry be in the event of a major fall-off in general business?

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With this factual background, Labor Secretary James P. Mitchell made a speech a week or two ago to the Railway Employees Department of the AFL. In it he advised unionists and managements to confer with each other—hoping they might agree to petition the federal government for "gradual elimination of all government subsidies in transportation." Commerce Secretary Mueller, a few weeks ago, made a similarly mild suggestion for remedial action—but he, also, favored "gradualism." In other words, government should correct the evils from which railroads are suffering (from politics, not from economics)—but *for heaven's sake let's not take any corrective action now*. Let's delay, put it off and wait.

Neither Secretary Mitchell, nor Secretary Mueller, nor the railway union chiefs, appear to realize that a substantial part of the railroad industry is suffering from galloping anemia, which could quickly result in a major crisis if general business were to fall off sharply.

For the Month of January 1960 Compared with January 1959

Region, Road and Year		Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. exc.locos and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine 1960	2,177	8,032	10,209	3.5	41,454	2,666	1,043	28.8	731	43.2	4,843	15.6	76.2
	1959	2,558	6,575	9,133	3.7	42,117	2,663	1,047	28.4	754	44.7	4,656	15.8	79.4
	N. Y., N. H. & Hartfd 1960	4,180	13,529	17,709	8.1	39,221	2,445	970	26.8	439	26.4	4,463	16.0	136.7
	1959	3,133	11,211	14,344	5.1	41,775	2,582	1,008	26.4	519	32.0	4,356	16.2	109.0
Great Lakes Region	Delaware & Hudson 1960	4,627	5,124	9,751	7.0	64,763	3,548	1,765	36.8	1,181	51.5	12,505	18.4	169.4
	1959	5,392	5,605	10,997	9.4	65,308	3,607	1,786	37.1	875	38.9	12,300	18.2	158.5
	Del., Lack. & Western 1960	5,746	9,162	14,908	10.9	56,981	3,043	1,302	30.1	665	34.3	10,293	18.9	140.1
	1959	6,577	8,193	14,770	8.7	51,819	2,826	1,162	29.3	582	32.5	9,757	18.6	144.8
	Erie 1960	10,839	16,078	26,917	8.5	73,073	3,461	1,369	26.0	920	53.8	10,690	21.3	114.7
	1959	11,952	13,152	25,104	8.5	68,652	3,377	1,326	25.0	856	51.2	9,666	20.6	108.1
	Grand Trunk Western 1960	5,052	7,351	12,403	5.6	54,730	2,458	955	28.5	509	30.9	6,586	22.3	104.4
	1959	5,132	7,788	12,920	6.8	50,045	2,420	936	28.3	479	28.6	6,615	20.8	89.9
	Lehigh Valley 1960	6,012	8,974	14,986	10.3	64,230	3,076	1,413	32.7	572	27.5	7,811	21.1	208.2
	1959	6,900	7,837	14,737	10.9	60,143	2,890	1,300	31.6	531	26.6	7,020	21.0	202.9
	New York Central 1960	61,048	74,630	135,678	8.6	60,149	3,409	1,433	33.8	704	36.8	9,047	17.8	169.0
	1959	69,547	63,183	132,730	9.9	50,836	2,968	1,294	33.5	639	34.3	8,169	17.3	156.3
	New York, Chic. & St. L. 1960	9,200	16,026	25,226	14.2	62,753	3,353	1,463	32.3	1,161	57.9	13,530	18.9	160.8
	1950	11,404	13,226	24,630	14.9	55,496	3,068	1,309	31.2	1,056	55.5	11,698	18.3	160.6
	Pitts. & Lake Erie 1960	4,855	7,042	11,897	4.9	59,125	3,786	2,224	55.0	383	11.1	20,172	15.7	125.7
	1959	10,210	3,389	13,599	8.8	56,292	3,460	2,133	57.6	296	8.4	17,139	16.4	126.8
	Wabash 1960	10,061	6,802	16,863	12.0	83,134	3,361	1,357	28.1	1,041	58.4	7,286	24.8	118.6
	1950	10,759	8,018	18,777	7.1	66,567	2,780	1,099	27.4	876	51.3	6,980	24.0	143.0
Central Eastern Region	Baltimore & Ohio 1960	59,180	42,464	101,644	13.2	56,026	3,527	1,657	37.5	712	32.9	12,455	16.1	114.6
	1959	63,508	38,752	102,260	15.4	53,120	3,391	1,591	40.6	631	27.8	10,810	15.9	94.7
	Bessemer & Lake Erie 1960	4,242	1,221	5,463	9.2	58,893	4,259	2,643	64.3	592	14.3	15,832	14.8	138.8
	1959	4,790	453	5,243	13.2	43,432	2,839	1,578	57.1	325	10.2	8,370	16.1	104.4
	Central RR Co. of New Jersey 1960	4,390	10,307	14,697	19.3	47,955	3,291	1,746	42.8	389	14.6	9,560	15.2	73.8
	1959	4,138	6,900	11,038	17.9	41,549	2,898	1,511	42.1	424	16.8	8,766	15.2	79.5
	Chicago & Eastern Ill. 1960	3,248	2,661	5,909	17.1	79,191	4,148	2,051	38.9	1,161	48.9	8,086	19.3	112.9
	1959	2,525	2,616	5,141	11.6	56,405	3,157	1,568	38.8	1,083	45.0	6,726	18.0	141.4
	Elgin, Joliet & Eastern 1960	7,507	8,781	16,288	4.1	21,123	3,042	1,638	46.8	223	8.1	17,553	7.2	77.1
	1959	8,322	7,964	16,286	5.9	18,441	2,925	1,553	45.1	191	7.2	14,686	6.6	66.9
	Pennsylvania System 1960	100,478	95,221	195,699	11.3	56,325	3,323	1,518	35.3	652	30.6	12,870	17.4	135.9
	1959	135,538	66,572	202,110	21.9	52,333	3,067	1,362	33.6	531	26.3	10,869	17.5	125.3
	Reading 1960	15,884	15,704	31,588	18.7	54,075	3,414	1,813	47.5	574	20.9	14,102	15.8	74.0
	1959	20,896	14,909	35,805	22.9	48,415	3,078	1,534	41.9	398	16.7	10,917	15.7	64.1
	Western Maryland 1960	6,951	2,531	9,482	5.1	58,234	4,036	2,297	51.1	1,074	33.2	12,403	14.7	127.6
	1959	7,326	2,658	9,984	2.8	54,723	3,706	2,075	50.7	868	29.1	11,210	15.1	123.7
Pocahontas Region	Chesapeake & Ohio 1960	60,835	24,879	85,714	4.3	76,629	4,151	2,275	48.9	955	35.2	16,640	18.5	65.2
	1959	61,480	23,429	84,909	6.7	72,722	3,991	2,162	49.1	930	35.4	16,191	18.3	69.4
	Norfolk & Western* 1960	53,501	7,318	60,819	3.4	91,299	5,208	2,823	53.9	1,071	36.7	24,506	17.9	127.0
	1959	55,489	9,768	65,257	5.1	82,896	4,887	2,666	53.2	913	31.2	22,769	17.4	103.3
	Rich., Fred. & Potomac 1960	96	1,083	1,179	2.1	112,120	4,485	1,894	29.8	2,382	127.4	22,178	25.0	91.5
	1959	139	1,230	1,369	1.4	92,600	4,263	1,627	26.8	1,748	110.5	18,718	21.8	90.9
Southern Region	Atlantic Coast Line 1960	19,238	16,652	35,890	5.4	51,219	2,958	1,361	35.9	843	40.4	5,614	17.4	206.4
	1959	22,178	16,260	38,438	3.7	49,355	2,788	1,238	34.6	761	38.8	6,165	17.8	197.0
	Central of Georgia 1960	3,681	4,986	8,667	3.4	54,945	3,147	1,532	37.0	1,006	42.6	5,177	17.5	191.7
	1959	4,160	5,050	9,210	3.2	52,398	2,981	1,445	37.2	1,016	43.3	5,202	17.6	197.5
	Florida East Coast 1960	658	3,746	4,404	.4	42,490	2,463	865	27.0	690	48.2	5,695	17.3	77.2
	1959	799	4,758	5,557	.6	41,914	2,504	865	26.6	634	44.3	6,281	16.8	86.4
	Gulf, Mobile & Ohio 1960	7,240	9,221	16,461	6.4	77,084	3,803	1,812	34.0	925	41.1	5,566	20.3	99.0
	1959	7,558	8,399	15,957	5.8	73,166	3,818	1,841	34.3	961	42.0	5,699	19.2	99.8
	Illinois Central 1960	27,201	21,216	48,417	3.1	62,535	3,399	1,577	34.5	1,028	48.6	7,574	18.5	107.6
	1959	28,118	21,429	49,547	3.9	57,698	3,248	1,488	34.4	967	46.9	7,498	17.9	94.1
	Louisville & Nashville 1960	35,014	19,488	54,502	10.0	57,539	3,214	1,592	39.9	869	36.3	8,345	17.9	195.0
	1959	36,332	17,634	53,966	7.0	54,026	3,093	1,518	39.2	815	35.4	7,894	17.5	201.7
	Seaboard Air Line 1960	16,608	14,001	30,609	2.8	60,871	3,349	1,542	36.2	965	45.2	7,169	18.5	181.4
	1959	18,957	11,284	30,241	2.8	59,829	3,263	1,448	35.3	928	45.7	6,788	18.7	175.2
	Southern 1960	21,147	32,685	53,832	3.5	57,749	3,390	1,575	32.9	831	40.2	6,935	17.1	148.3
	1959	21,616	28,864	50,480	4.7	58,128	3,221	1,477	31.9	804	39.9	6,436	18.1	155.4
Northwestern Region	Chicago & North Western 1960	21,519	25,051	46,570	7.2	47,165	2,773	1,176	31.0	628	33.6	3,161	17.1	144.0
	1959	21,997	28,021	50,018	4.4	49,166	2,687	1,105	30.2	577	31.0	3,056	18.4	156.0
	Chicago Great Western 1960	2,529	2,647	5,176	4.6	63,264	3,326	1,490	32.6	1,116	55.0	4,490	19.1	172.9
	1959	2,204	3,656	5,860	4.1	65,786	3,404	1,545	32.5	1,123	54.2	4,696	19.3	179.7
	Chic., Milw., St. P. & Pac. 1960	28,188	19,814	48,002	5.5	65,620	3,201	1,405	31.1	725	36.8	3,323	20.6	150.2
	1959	31,734	26,995	58,729	3.5	60,161	3,046	1,336	31.2	623	32.4	3,441	19.8	99.5
	Duluth, Missabe & Iron Range 1960	12,184	905	13,089	1.5	30,210	2,053	1,009	41.2	68	3.1	1,560	15.5	14.1
	1959	14,034	764	14,798	4.3	23,763	1,525	648	32.9	37	2.4	988	16.1	16.1
	Great Northern 1960	23,971	14,945	38,916	3.4	61,664	2,890	1,335	32.7	953	43.4	4,536	21.5	107.5
	1959	24,615	17,155	41,770	2.8	56,993	2,761	1,281	33.3	893	40.6	4,608	20.8	117.1
	Minn., St. P. & S. Ste. Marie 1960	6,906	6,142	13,048	7.0	46,981	2,377	1,087	31.8	872	42.4	2,843	19.8	120.2
	1959	7,414	6,113	13,527	6.9	44,493	2,274	1,011	31.3	869	43.7	2,786	19.6	130.7
	Northern Pacific 1960	20,174	12,890	33,064	3.0	62,621	2,901	1,294	30.8	916	45.6	4,764	21.6	106.3
	1959	19,708	12,286	31,994	2.9	59,713	2,747	1,243	30.6	903	43.7	4,582	21.8	107.6
	Spokane, Portland & Seattle 1960	1,587	3,742	5,329	2.6	41,281	2,787	1,358	33.3	1,122	46.2	6,390	14.9	91.9
	1959	1,734	3,868	5,602	2.5	45,395	2,852	1,378	32.9	1,116	46.9	6,404	16.0	90.3
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1960	54,655	28,200	82,855	3.9	81,272	3,156	1,239	28.5	1,203	66.7	7,775	25.9	139.2
	1959	52,920	27,258	80,178	8.5	79,083	3,245	1,254	28.0	1,128	64.6	7,160	24.4	126.4
	Chic., Burl. & Quincy 1960	26,203	17,704	43,907	4.1	66,293	2,937	1,258	30.3	922	48.9	4,701	22.7	159.7
	1959	24,802	22,701	47,503	3.5	63,031	2,898	1,285	31.1	912	45.7	5,092	21.8	167.9
	Chic., Rock I. & Pac. 1960	15,535	19,954	35,489	4.9	67,551	3,138	1,286	30.3	1,048	56.3	4,997	21.6	162.7
	1959	16,672	25,398	42,070	4.5	60,233	2,841	1,197	30.8	955	50.1	5,205	21.3	189.2
	Denver & R. G. Western 1960	8,011	6,576	14,587	5.4	65,845	3,194	1,576	35.5	1,019	40.1	6,935	20.7	122.0
	1959	8,131	5,358	13,489	5.5	65,565	3,127	1,560	34.9	1,034	40.6	6,457	21.0	114.2
	Southern Pacific 1960	34,054	38,057	72,111	2.1	72,543	3,191	1,393	30.0	1,207	62.2	11,116	23.0	99.3
	1959	34,543	32,284	66,827	2.3	69,690	3,209	1,337	28.7	1,219	65.9	10,476	22.0	110.6
	Union Pacific 1960	34,012	29,678	63,690	2.3	91,046	3,291	1,424	29.9	1,420	73.2	9,345	27.9	149.1
	1959	33,896	30,320	64,216	1.7	87,697	3,223	1,358	29.6	1,360	73.3	9,205	27.4	152.7
	Western Pacific 1960	2,720	2,464	5,184	3.8	74,673	2,605	1,199	31.7	1,966	90.3	8,183	28.9	176.1
	1959	2,772	2,595	5,367	2.0	75,103	2,704	1,236	31.1	1,606	75.0	7,418	27.9	178.4
Southwestern Region	Kansas City Southern 1960	2,177	5,603	7,780	6.0	100,481	4,822	2,249	35.2	1,174	51.1	10,266	20.9	210.1
	1959	2,892	4,948	7,840	6.2	95,886	4,450	2,102	35.4	1,240	52.6	10,848	21.9	213.7
	Louisiana & Arkansas 1960	1,797	3,384	5,181	6.8	82,910	4,194	2,023	38.2	960	39.1	6,631	20.0	165.8
	1959	2,227	2,879	5,106	7.0	83,067	4,105	1,970	37.6	872	35.8	5,934	20.3	170.2
	Mo.-Kans.-Texas Lines 1960	5,524	5,678	11,202	9.4	59,050	3,292	1,412	33.3	908	46.5	3,446	18.0	135.3
	1959	5,638	7,564	13,202	8.2	61,852	3,537	1,582	33.1	858	41.6	3,662	17.5	107.7
	Missouri Pacific 1960	25,500	19,611	45,111	6.3	73,555	3,346	1,475	31.5	1,230	61.5	5,937	22.1	179.4
	1959	24,422	18,927	43,349	8.8	70,082	3,307	1,481	32.7	1,232	60.5	5,706	21.3	165.5
	St. Louis-San Francisco 1960	10,431	11,645	22,076	1.5	59,190	2,740	1,283	31.9	1,128	52.3	5,411	21.7	201.8
	1959	13,165	10,432	23,597	1.6	57,281	2,689	1,238	31.5	1,013	48.5	5,096	21.4	195.5
	St. Louis Southw. Lines 1960	2,215	3,463	5,678	4.2	79,882	3,056	1,366	28.9	2,773	139.8	10,144	26.2	241.3
	1959	2,708	4,392	7,100	3.4	71,018	2,899	1,296	28.2	2,049	109.2	9,167	24.5	234.7
	Texas & New Orleans 1960	6,809	13,658	20,467	2.3	83,354	3,313	1,471	31.3	1,388	68.0	6,830	25.3	142.7
	1959	7,059	13,812	20,871	1.6	77,144	3,189	1,390	31.9	1,367	69.0	6,842	24.3	153.4
	Texas & Pacific 1960	3,556	5,782	9,338	4.2	84,510	3,552	1,350	28.4	1,382	78.4	7,015	23.9	260.3
	1959	3,680	5,703	9,383	4.4	79,358	3,632	1,325	28.3	1,404	85.4	7,342	22.0	280.7

* Includes operations of Virginian Ry. Co., merged into Norfolk & Western Ry. Co., December 1, 1959.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Railroading After Hours with Jim Lynch

SUBSIDIZING THE RICH—As an occasional plane passenger, I got some advertising literature from one of the big airlines the other day. The leaflet tried to make me feel superior by suggesting that, as an air traveler, I am presumably a member of the upper crust. Most plane passengers, the leaflet said, are "executives" (whatever that is)—and half of them earn over $10,000 a year, and most of their journeying is for business purposes (i.e., on the expense account).

What I'm getting around to is this—since these air travelers are so well-heeled, why do national and local governments feel obliged to pay part of the cost of this kind of travel? Every big airport in the country could be converted from a municipal expense into a source of revenue, if a compensatory charge were levied on every passenger passing through these terminals.

MELONS IN STOCK CARS—Can anybody tell me whether watermelons are still being shipped in stock cars? I haven't seen any for a long time—and I'd suspect the practice has died out, considering the present price of the melons and their liability to damage when they are hauled in stock cars.

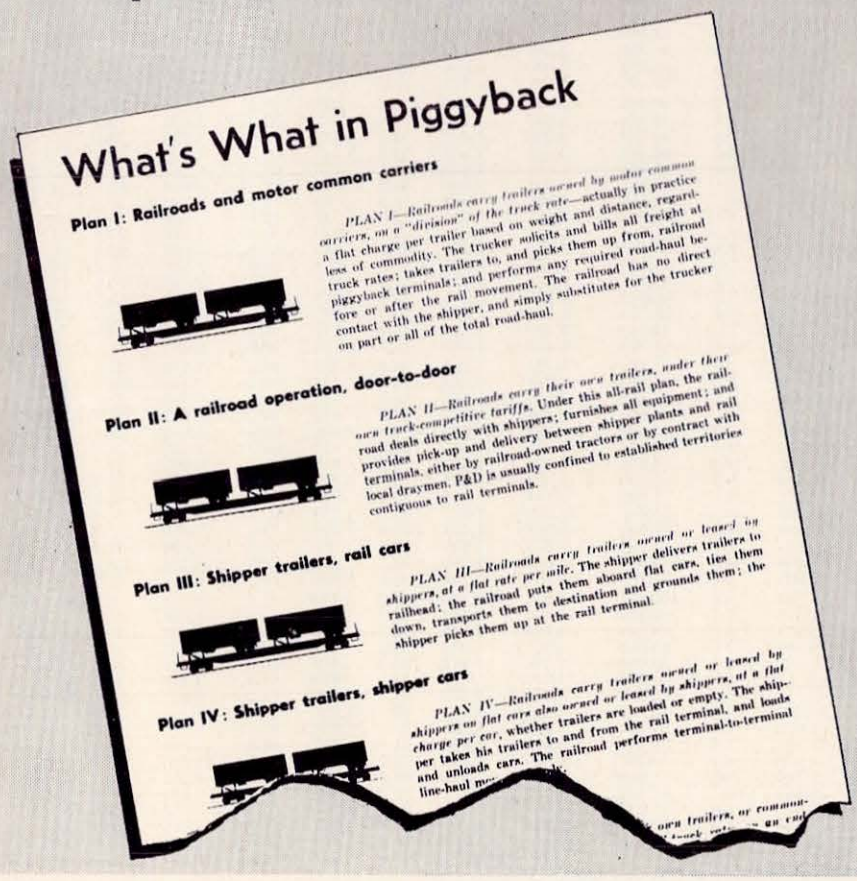
I recall that, when melons were so shipped, the practice was to put laths between the slats in the sides of the cars—but the laths were easily dislodged. So anybody with a butcher knife and a little privacy could carve himself a slice. The loss probably wasn't ruinous with melons selling for two bits, with only the outside rows exposed, but it would be something at present prices. Lining the car with chicken wire, I always thought, would be more effective.

WORKING RULES—A union legislative man sent me the other day the copy of a friendly letter written by the president of his railroad, explaining gently but firmly why onerous working rules must be modified. There wasn't a word in the whole piece that reflected on the integrity or ability of railroad employees.

The unionist's comment, however, did not discuss the merits or demerits of the specific proposals the railroads have made. He wrote about the Adamson Act and other such ancient history. I'd really like to see some intelligent debate on the changes the railroads have suggested, rather than whether the proponents are guilty of sundry sins solely because they happen to be successors to the jobs of their predecessors of 50 or 75 years ago.

For example, just why should 100 miles be a "day" on the railroads and 200 miles or more be a "day" for a truck driver—and what is the effect of this difference on railroad traffic and employment?

Keep Your Salesmen and Customers Informed


What's What in Piggyback
Plan I: Railroads and motor common carriers
Plan II: A railroad operation, door-to-door
Plan III: Shipper trailers, rail cars
Plan IV: Shipper trailers, shipper cars

Piggybacking continues to roll up new loading records week after week. More traffic men are selling the service; more shippers are using it.

Railway Age has prepared a handy guide to the five principal plans of piggyback service (RA 3-28-60, p 74). Railroad salesmen can use these Time-Saver definitions to keep themselves up-to-date and as a top "recall" item for their customers.

A supply of "What's What in Piggyback" can be obtained at low cost—

3 to 9 copies: 20¢ each
10 to 99 copies: 16¢ each
100 or more: 12¢ each

Write:
R. G. Lewis, Publisher, Railway Age,
30 Church St., New York 7

MARKET OUTLOOK *at a glance*

Carloadings Rise 2.9% Above Previous Week's

Loadings of revenue freight in the week ended April 30 totaled 643,271 cars, the Association of American Railroads announced on May 5. This was an increase of 17,897 cars, or 2.9%, compared with the previous week; a decrease of 32,923 cars, or 4.9%, compared with the corresponding week last year; and an increase of 110,066 cars, or 20.6%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended April 23 totaled 625,374 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, April 23

District	1960	1959	1958
Eastern	88,598	96,656	81,716
Allegheny	114,726	124,701	92,132
Pocahontas	54,278	54,247	42,186
Southern	119,463	115,137	106,458
Northwestern	90,230	90,125	59,529
Central Western	108,540	117,917	103,789
Southwestern	49,539	50,536	48,041
Total Western Districts	248,309	258,578	211,359
Total All Roads	625,374	649,319	533,851
Commodities:			
Grain and grain products	46,012	47,604	49,352
Livestock	4,623	5,528	6,155
Coal	107,811	106,545	91,089
Coke	9,655	11,296	4,736
Forest Products	39,664	38,892	33,640
Ore	59,324	48,843	16,143
Merchandise l.c.l.	36,759	42,225	45,532
Miscellaneous	321,526	348,386	287,204
April 23	625,374	649,319	533,851
April 16	622,635	634,848	534,507
April 9	598,384	619,268	521,160
April 2	598,031	590,592	516,247
March 26	600,926	604,392	532,273
Cumulative total, 16 weeks	9,423,989	9,461,188	8,610,542

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended April 23 totaled 10,346 cars, compared with 7,932 for the corresponding 1959 week. Loadings for 1960 up to April 23 totaled 165,943 cars, compared with 117,003 for the corresponding period of 1959.

IN CANADA. — Carloadings for the seven-day period ended April 21 totaled 59,614 cars, compared with 67,467 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
April 21, 1960	59,614	26,643
April 21, 1959	69,559	28,323
Cumulative Totals		
April 21, 1960	1,035,475	470,449
April 21, 1959	1,036,663	439,877

New Equipment

FREIGHT-TRAIN CARS

► *Burlington.*—Ordered 100 70-ton Dry-Flo covered hopper cars and 50 70-ton Airslide covered hopper cars from General American. Havelock, Neb., company shops will build 100 50-ton 40½-ft box cars equipped with lading protection devices; 500 70-ton open-top hopper cars (carried over from 1959 program); and 30 all-steel cabooses. Meanwhile, the road is now taking delivery of 140 40-ft double-deck livestock cars, built in Chicago Ridge shops of North American Car Corp. and leased to Burlington for a five-year period.

► *Rio Grande.*—New equipment ordered includes 200 70-ton open-top hopper cars; 50 50-ton, 53-ft 6-in. reinforced bulkhead end flat cars equipped with roller bearings; and 25 70-ton covered hopper cars. Cost will be in excess of $2,800,000.

► *Southern Pacific.*—Ordered an additional 100 95-ton, open-top hopper cars with aluminum bodies and steel underframes from ACF. This doubles an order for 100 cars of this type placed with ACF last year (RA, Dec. 21, 1959, p. 63). The cars will be used in Texas sulphur service.

LOCOMOTIVES

► *Seaboard Air Line.*—Ordered 20 general purpose, 1,800-hp diesel-electric freight locomotives—10 from EMD and 10 from Alco. Total cost: $3,790,000. EMD order will be delivered in August. Delivery of Alco order will begin the week of June 27 and be completed the week of July 11.

FOREIGN

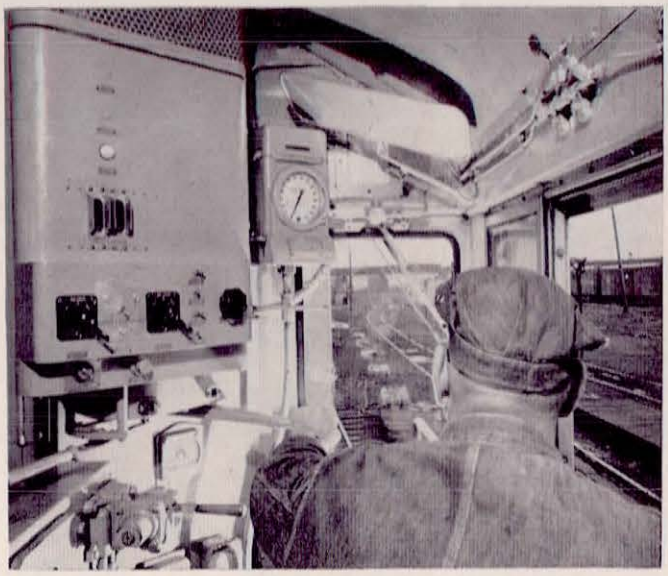
► *General Electric.*—Received an order from Cornigliano S.p.A. of Genoa, an Italian steel company, for four 550-hp, industrial type diesel-electric locomotives.

New Facilities

► *Atlantic Coast Line.*—Awarded contract for construction of a new district office building and freight warehouse at Tampa, Fla., to the Hungerford Construction Co. of Tampa. The new facilities will be located on a 143-acre site at 39th St. and Adamo Dr. Construction will begin immediately, is expected to be completed in the early spring of 1961.

► *Louisville & Nashville.*—Major projects include replacing and relocating automatic telephone exchange in General Office Building at Louisville, $110,000; extension of CTC near Mobile, Ala., $95,871; construction of division office building at Birmingham, Ala.

GE'S NEW 2,500-hp high-speed diesel-electric locomotive heads out of yard. It has supercharged 16-cyl engine.



ENGINEER CONTROLS locomotive speed with 16-notch throttle. Cab is insulated and pressurized with filtered air.

GE Offering 2,500-HP Unit

► **Story at a Glance: General Electric's entry on April 26 into the domestic high-horsepower diesel-electric locomotive market (RA, May 2, p.9) raised two important questions in railroad circles. Why is GE entering this market at this late date? What kind of a locomotive is being offered?**

The answers: GE has confidence in the railroads' growth. It believes its 2,500-hp high-speed, four-axle U25B unit is the kind of power needed to get traffic back on the rails.

General Electric surprised no one with the announcement that it had a high-horsepower diesel-electric unit. Since early 1959 the XP 24-1 has been under test on the Erie. But the April 26 announcement by GE's chairman, Ralph J. Cordiner, that the 2,500-hp unit was being added to its domestic line caught the railroad industry by surprise. Most railroad men thought the test locomotive was only a research lab for service testing of components.

At GE's Erie, Pa., plant on April 29, Motor and Generator Division General Manager O. L. Dunn told Railway Age that "the decision to market the new locomotive expresses GE's confidence in the growth of the American railroad industry."

Both Mr. Dunn and G. W. Wilson, general manager, Locomotive and Car Equipment Department, emphasized that GE wanted to be sure that the product it offered would contribute significantly to better earning possibilities. Studies showed that most of the railroads' revenue does not come from drag freight but originates from products of manufacturers and from miscellaneous freight. High-speed operation is required, they said, "to regain freight revenue lost to other forms of transportation."

The main objective in designing the U25B was to produce the most horsepower with the least machinery. Four axles are ample to deliver 2,500 hp, or 625 hp per axle, according to GE engineers. They point out that the 8,500-hp Union Pacific GE-built gas-turbine locomotive is delivering over 700 hp per axle through the same GE 752 motor.

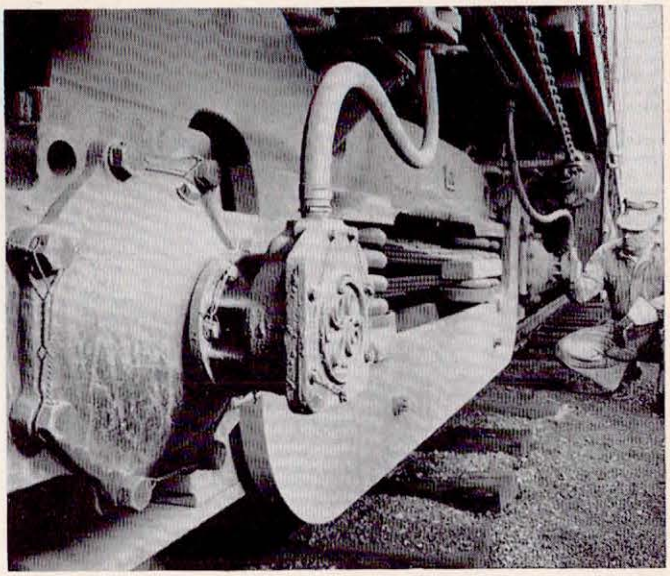
The U25B is powered by a 16-cylinder four-stroke cycle, turbocharged engine with 9 in. by 10½ in. cylinders in a 45-deg Vee arrangement. It is built to GE's specifications by Cooper-Bessemer at Grove City, Pa. The engine has an integral head and cylinder arrangement which can be pulled in 15 min., according to GE. It is equipped with cast-iron pistons, valve seat inserts and the Bendix fuel system. The cylinder liner is chrome plated and 3/16 in. thick. Because of this thin liner it is claimed that the cylinder walls run cooler due to better heat transfer.

GE is taking complete responsibility for the entire locomotive. It has developed maintenance tools for the engine and will also train men to service and maintain this power unit.

The locomotive design includes several unusual features. Pressurized filtered air is delivered to the operator's cab, engine cab, electrical machines, and the control equipment. A self-cleaning static air cleaner operates at nearly 100% efficiency for all particles over eight microns. Exclusion of dirt is expected to increase reliability of apparatus and to reduce cleaning costs. Engine air is also cleaned through oil bath filters.

Radiators are roof mounted at the rear of the engine cab with fans directly driven by shaft and gearing from the engine. Water temperature is thermostatically controlled through by-passing all or part of the cooling water through the radiators. There are no shutters and no electrical controls. The builder claims that, while there may be a very slight increase in fuel cost because the fans operate continuously, this disadvantage is more than offset by the

ELECTRICAL CONTROLS are in pressurized cabinets beneath cab. Location makes tampering difficult.



WHEEL SLIP is automatically detected by alternator. Slip is corrected by fast, light application of brakes.

to Domestic Diesel Market

decrease in maintenance obtained by elimination of the variable speed control.

Nothing is mounted over the engine and generator, permitting easy access to this space through hinged engine hatches. Detachable roof sections permit removal of equipment.

All piping and wiring are located at the sides of the locomotive under running boards—piping on one side, wiring on the other.

The electrical control compartments are also located on the side of the locomotive below the operating cab. They are easily accessible from the ground or a platform but difficult to tamper with when the locomotive is in motion.

Because of its high capacity, the GT-598 generator permits a simplification of controls and a reduction in the number of contactors.

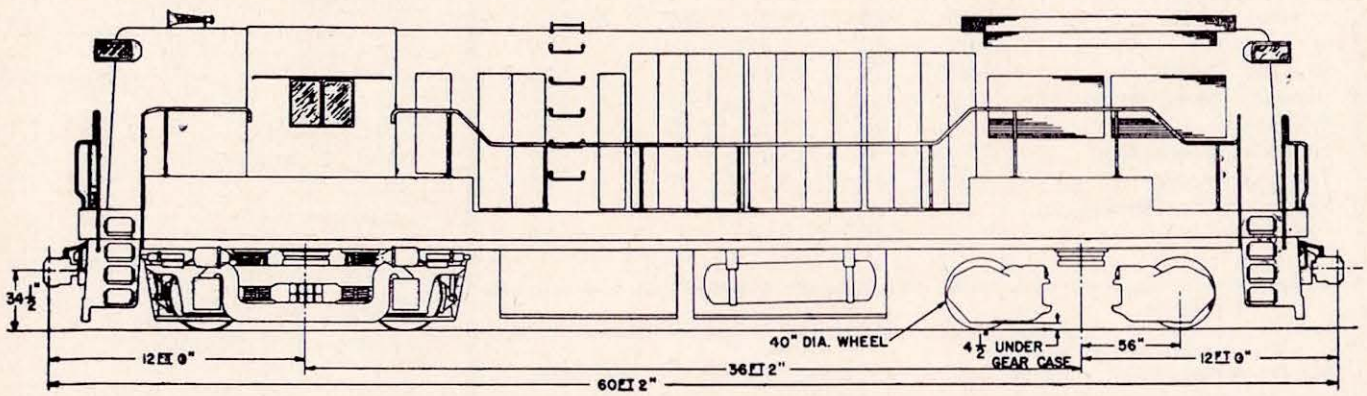
The locomotive is equipped with only four rotating machines, other than the traction motors. These are the main generator, exciter, fuel pump, and battery-charging generator. There are no belts on the unit.

GE's adhesion loss detection system with an alternator on each axle automatically signals when wheels are slipping. Correction is automatic through a fast-acting slip-suppresion brake. Manual control is also furnished.

A new mounting of the controller in the operating cab adds more room in this limited space. The throttle has 16 notches instead of the usual eight for more selective power control. The sides, roof and floor of the cab are insulated.

A welded underframe of low alloy steel is used with cast-steel bolster and draft gear housing. The running gear consists of two four-wheel two-axle, side equalized trucks with 40-in. wheels and 6½ in. by 12 in. roller-bearing journals.

The locomotive has a maximum tractive effort of 81,000 lb. It carries 1,700 gal. fuel oil.



U25B LOCOMOTIVE weighs 130 tons, has 81,000-lb maximum starting tractive force, can be geared for 65 to 92 mph.

1959's Biggest RR Earners

Atchison, Topeka & Santa Fe was the biggest money-maker among U. S. railroads last year, replacing Union Pacific at the top of the list. UP went into the No. 2 spot. Norfolk & Western climbed from fifth to third place by absorbing the Virginian (which ranked 15th in 1958). A pair of merger-minded southern roads, Seaboard Air Line and Atlantic Coast Line, both advanced: Seaboard from 13th to 10th, ACL from 18th to 16th. The eastern giants—Pennsylvania and New York Central—failed again to finish in the big money, but they climbed higher on the list: NYC from 31st to 19th, PRR from 32nd to 22nd.

NET PROFITS AFTER TAX IN MILLIONS

	1959	Rank	1958	Rank	% change 1959 vs. 1958
Atchison, Topeka & Santa Fe[1]	$65.79	1	$67.24	2	− 2.2
Union Pacific and Leased Lines	64.84	2	77.78	1	− 16.6
Norfolk & Western[2]	60.74	3	55.08	5	+ 10.3
Southern Pacific Transportation System[3]	49.20	4	47.05	4	+ 4.6
Chesapeake & Ohio	45.69	5	51.70	3	− 11.6
Southern	33.13	6	30.25	6	+ 9.5
Great Northern	26.56	7	27.58	7	− 3.7
Northern Pacific	23.78	8	22.01	8	+ 8.0
Chicago, Burlington & Quincy	17.70	9	19.49	9	− 9.2
Seaboard Air Line	17.03	10	15.13	13	+ 12.6
Missouri Pacific	15.56	11	15.76	12	− 1.3
Illinois Central	15.04	12	18.06	10	− 16.8
Baltimore & Ohio	14.81	13	16.07	11	− 7.8
Louisville & Nashville	13.44	14	13.24	14	+ 1.5
New York, Chicago & St. Louis	13.29	15	10.43	16	+ 27.4
Atlantic Coast Line	11.84	16	9.99	18	+ 18.5
St. Louis Southwestern	9.48	17	8.57	19	+ 10.6
Denver & Rio Grande Western	8.69	18	10.39	17	− 16.4
New York Central	8.40	19	4.05	31	+107.4
Chicago, Rock Island & Pacific	8.29	20	8.20	21	+ 1.1
Pittsburgh & Lake Erie	8.13	21	7.34	22	+ 10.8
Pennsylvania	7.27	22	3.54	32	+105.4
Kansas City Southern	6.77	23	6.22	23	+ 8.8
Chicago, Milwaukee, St. Paul & Pacific	5.88	24	8.38	20	− 29.8
Western Maryland	5.84	25	6.10	24	− 4.2
Texas & New Orleans	5.59	26	5.96	25	− 6.2
Delaware & Hudson	5.39	27	3.33	33	+ 61.9
Cincinnati, New Orleans & Texas Pacific	5.19	28	4.27	28	+ 21.5
St. Louis-San Francisco	5.03	29	5.44	26	− 7.5
Western Pacific	4.09	30	5.11	27	− 20.0
Detroit, Toledo & Ironton	3.90	31	2.59	—	+ 50.6
Wabash	3.78	32	4.12	30	− 8.3
Louisiana & Arkansas	3.63	33	3.25	—	+ 11.7
Texas & Pacific	3.48	34	4.13	29	− 15.7
Richmond, Fredericksburg & Potomac	3.07	35	3.08	—	− 0.5

[1] Includes Atchison, Topeka & Santa Fe Ry.; Gulf, Colorado & Santa Fe Ry; and Panhandle & Santa Fe Ry.

[2] Includes operations of the Virginian merged into Norfolk & Western December 1, 1959. Virginian ranked 15th in 1958.

[3] Includes Southern Pacific Company; Texas & New Orleans R.R. Co., and leased lines.

Source: ICC Statement No. M-125. Due to the ICC method of reporting T&NO is listed twice.

TRRA SPEEDS INTERCHANGE

(*Continued from page 24*)

deliveries. TRRA provides the service 24 hours a day. By attempting to eliminate the bulk of switching in its yards, Terminal can perform efficient and speedy interchange service.

Even more important to the plan's success than the cooperation of line haul carriers is the cooperation of all Terminal employees. "Everyone at Terminal," says Mr. Maxwell, "is pitching in to help the pre-block system cut interchange time. Every employee is concerned with the success of this plan. Yard crews are making every move count, clerks handle the bills a little faster. They all know that the faster they move this traffic the more of it there will be."

Mr. Maxwell, who came to TRRA from the New York Central last year, carried his public relations efforts in behalf of pre-blocked service right to the doorstep of those who stand to benefit most from the improved service. He's discussed the pre-block plan with major shippers and traffic men from all parts of the country. Naturally, they like the idea of improved service at no added cost. Another point that shippers favor is the quicker return of empty equipment—Terminal urges the inclusion of empties with the pre-blocked revenue loads.

Would this plan work at other gateways? "It would—it certainly isn't patented," Mr. Maxwell comments, "but the situation at St. Louis is unique, however, in that the Terminal Railroad Association controls the bulk of the interchange."

What savings can the line haul carriers look for by pre-blocking interchange traffic for Terminal? "When the plan is operating at maximum capacity," says Mr. Maxwell, "it can result in direct savings to all St. Louis lines of over three-quarters of a million dollars annually."

Dividends Declared

BANGOR & AROOSTOOK.—20¢, quarterly, payable June 30 to holders of record June 16.

DELAWARE.—$1, semiannual, payable July 1 to holders of record June 15.

EAST PENNSYLVANIA.—$1.50, semiannual, payable July 19 to holders of record July 1.

ELMIRA & WILLIAMSPORT.—preferred, $1.62, semiannual, payable July 1 to holders of record June 20.

MASSAWIPPI VALLEY.—$3, semiannual, payable Aug. 1 to holders of record July 1.

NORFOLK & WESTERN.—$1, quarterly, payable June 10 to holders of record May 12.

NORTHERN CENTRAL.—$2, semiannual, payable July 15 to holders of record June 30.

PHILADELPHIA & TRENTON.—$2.50, quarterly, payable July 11 to holders of record July 1.

PITTSBURGH, FORT WAYNE & CHICAGO.—common, $1.75, quarterly, payable July 1 to holders of record June 10; 7% preferred, $1.75, quarterly, payable July 5 to holders of record June 10.

Union Tank Builds Record 'Hot Dog' Car

The new 30,000-gal. tanker (above) is handling LP-gas shipments for Tuloma Gas Products Co., Tulsa, Okla. The unit is one of two constructed to date by Union Tank Car Co. Tanks were fabricated by the firm's Graver Tank Division with all seams welded by submerged arc process. They are designed to withstand 1000 psi bursting pressure and weigh 67,545 lb. Draft sills are integrally attached to the tank, a patented design which Union has incorporated in over 400 cars. There is no continuous center sill. Other features: Length over couplers, 85 ft, 1/4 in. Maximum height from rail, 14 ft, 7 1/16 in. Light weight, 108,000 lb. Maximum weight, loaded, 251,000 lb. Shell capacity (water), 30,000 gal. (LP-gas, 28,080 gal.). Length of shell over heads, 79 ft, 5 in. The car was displayed at the Liquefied Petroleum Gas Association meeting in Chicago recently.

High Earnings of Engineers Cited

The carriers got their turn before the six-man BLE wage arbitration panel last week—and came up with this assessment of the economic status of the locomotive engineer:

- Earnings of all engineers average $178.87 per week. Average annual earnings range from $10,739 in passenger service to $9,826 in freight service and $8,376 in yard service.
- Present average annual earnings represent increases ranging from $2,934 for passenger engineers to $2,238 for yard engineers since 1953.
- On a basis of annual earnings, passenger engineers now rank second only to executives, general officers and assistants among the 128 classes of railway employees. On a basis of straight-time earnings per hour, passenger engineers rank second to none.
- Since 1947, labor costs for four classes of engineers have increased 43.8%, or 11.8% in real dollars. During the same period, railroad income has suffered a reduction of 20.8% in real dollars.

Quentin D. Watson, secretary of the Bureau of Railway Economics of the AAR and chief of its wage division, pointed out that "passenger and through freight engineers are particularly favored by inequities in the present wage structure . . . Because of the mileage basis of pay for road operating employees [they] are now paid for about twice as many hours as they actually work." Local freight and yard employees, he added, don't enjoy a similar advantage.

Exhibits introduced later by Hugh E. Greer, secretary of the Association of Western Railways' labor relations committee, showed that:

- Average straight-time hourly earnings of all rail employees except executives, officials and assistants are 49 cents an hour higher than those of U.S. manufacturing workers.
- Average earnings of all rail operating employees are 94 cents an hour higher than those of rail non-operating personnel.
- Average earnings of engineers are 54 cents an hour higher than those of other operating employees.

Mr. Greer stressed the use of " 'value productivity' [as] a much more valid index than 'physical productivity'." Physical productivity, he said, "does not take into account dollar changes in the value of goods produced. It therefore reflects neither the ability of an industry to adjust prices because of competitive conditions nor [its ability] to retain its share of high-value products."

Earnings of rail employees in general and of locomotive engineers in particular have consistently led those of manufacturing workers, the witness testified, while declines in value productivity, revenues and profits have dropped the industry to a depressed status.

"The carriers' post-war fortunes are strikingly similar to the depressed 25% of manufacturing industries," Mr. Greer noted. "Yet in the matter of labor costs they are bracketed with the bonanza group. The railroads can no longer afford to lead the way in granting wage increases."

The BLE arbitration hearings were sharing the day with the non-ops emergency board proceedings—four hours each day are devoted to each case.

Emergency board hearings last week centered on presentation of the non-ops' case for increases in wages and benefits. G. E. Leighty, chairman of the unions' national negotiating committee, led off the testimony before the organizations put economist Eli Oliver on the stand to develop the case in support of the demands.

Meanwhile, two developments cropped up in the continuing dispute over stabilization of employment:

- The BLE served a demand on the bankrupt Hudson & Manhattan for a rule providing that no job can be abolished without consent of the union.
- Chicago & North Western petitioned the U.S. Supreme Court for a rehearing in the dispute over bargainability of job freeze demands. The court ruled such demands bargainable in a 5-4 decision last month.

You Ought To Know...

Fines totaling $60,800 were paid during this year's first three months by 38 railroads for violations of the Safety Appliance, Hours of Service, Signal Inspection, Locomotive Inspection and Accident Reports Acts. Biggest payer, according to the ICC, was the Milwaukee, assessed $12,500. Next biggest was the Baltimore & Ohio, which paid $5,000.

Dualization of 60 agency stations in Minnesota "will conform more realistically with the public need and will utilize more efficiently the services of the railroad agent," Milwaukee Road officers told the state railroad and warehouse commission. The company is petitioning for authority to dualize the 60 agencies into 30 central and 30 associate stations. Station buildings would remain and regular office hours would be maintained at each of the 60 locations. Annual savings are estimated at $150,000.

A new diesel fuel derived from the hydrocarbon mineral Gilsonite is now being used by the Denver & Rio Grande Western. President G. B. Aydelott said last week the road was motivated by the new fuel's lower cost. The American Gilsonite refinery in eastern Utah is on the D&RGW's main line, about midway in its system. By late spring the plant will be producing 1,600 barrels of railroad fuel per day.

Travel-Sleep-Dine package plan on the Milwaukee's "Olympian Hiawatha" has been a success—so the road is extending it four more months, through Sept. 15. The package provides for coach fare plus low occupancy charges for berth space, reduced price coupons for meals and purchase of the complete package in advance of departure.

Asphalt-treated roadbeds will be tested this year by the Norfolk & Western, Monon, Louisville & Nashville, Chicago & North Western, and Texas & Pacific, according to the Asphalt Institute. Pittsburgh & West Virginia and the Rock Island plan asphalt treatment of timber bridges. Santa Fe, which treated 25 miles of roadbed with asphalt last year (RA, June 8, 1959, p. 22), may extend its experimental program this year.

A two-week seminar on transportation pricing policy for executives at the policy-making level will be held June 19-July 1 at Northwestern University's Transportation Center. Panel discussions will deal with agreed charges, economic analyses for policy making, government regulation of transport pricing and the influence of innovation and technological change on pricing.

Would railroad ownership of the John I. Hay barge line hurt the independent water carrier industry or its shippers? Hardly, according to traffic figures quoted by Wayne A. Johnston, president of the Illinois Central (which, with Southern Pacific, is seeking authority to acquire the Hay company). In 1958, IC points out, the volume of commerce on the Mississippi River system was estimated at almost 175 million tons by the Corps of Engineers. And the Hay company carried just about 1/230ths of the total. With those figures on the record, Mr. Johnston comments, "It is hard to believe that railroad ownership of such a minute part of the barge industry would be any more threat than a mosquito is to an elephant."

Annual meeting of the American Railway Magazine Editors Association will be held Oct. 12-14 in Chicago. Original plans, calling for the conference to be held in Seattle, Wash., Sept. 21-23, were cancelled after a poll of the membership indicated attendance at Seattle would be light.

First woman hearing examiner at the ICC is Edith H. Cockrill. She's a former judge of the District of Columbia Juvenile Court.

Better inventory control reduced New York Central's stocks of materials to the lowest level in the system's history last year. Inventories at the end of 1959 were more than $900,000 below the year-earlier level.

Increased spending for industrial development is being reported by highway, air and water carriers. A study published by the Committee for Economic Development shows these carriers spent $5.6 million for development programs in 1957 (latest figures). Electric and gas utilities spent $8 million. Railroad outlays: $65 million.

Plan II TOFC service between Norfolk, Va., and the Midwest was inaugurated May 4 by the Norfolk & Western. First movement: trailerloads of canned pineapple. Previous N&W Plan II service (in which the railroad carries its own trailers) was confined to shipments of tobacco products between Norfolk and Durham, N. C.

Riders quadrupled in March on "Operation Northeast" bargain-fare trains in Philadelphia, according to the city solicitor. Reading trains on the line carried 42,397 passengers, a 32,123 gain over March of last year. The March gains for "Operation Northwest," in operation for 19 months, were 18% over March 1959.

Abandonment of all 49 miles of the Unadilla Valley Railway's line in upstate New York has been authorized by the ICC. A company spokesman said the railroad, which owns 16 freight cars and one diesel locomotive (with one steam engine on stand-by duty), has been running three- and four-car trains "about twice a week."

Albert R. Beatty, assistant vice president of the AAR, will receive an honorary doctor of laws degree from Aquinas College in Grand Rapids, Mich., May 29. Mr. Beatty, who will give the commencement address, is being honored for "his dedication to education and for his extensive research and writings on the little-known aspects of the life of George Washington."

THE DEVELOPMENT OF AMERICAN INDUSTRIES

by John G. Glover and Rudolph L. Lagai

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by John G. Glover

This authoritative new book presents an up-to-date treatment of the principles of management. It presents a systematic approach to the subject with broad coverage of the field from the underlying philosophy of management to the work-saving potential of automation. Thorough treatment of the basic principles of management makes the book invaluable for both the student and the younger executive. More advanced materials on such subjects as research resources, budgetary control, linear programming and automation provide a strong appeal for the seasoned executive who seeks an authoritative and compendious statement of the more recent developments in management techniques. 1958. 406 pp. illus. 6 x 9. Cloth. $6.50

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Why 'Gradual,' Mr. Mitchell?

Under a system of free markets and free enterprise, the relative earnings that companies and industries are able to attain serve as a signal system to control the direction of the nation's economic progress and growth. Relative earnings —if they are high—single out the companies and industries which should be expanding. And such expansion takes place automatically, because investors are eager to put their money into high-earning companies and industries. Conversely, poor earnings set a red signal against continued investments where the return is meager.

•

In countries which do not have free markets (such as Russia, for example), the allocating of investment capital among various industries is done by government. The officials who do the allocating may be skillful or not—but no matter how skillful they are, they could not possibly hope to measure exactly what industries and products, if increased, will best satisfy the maximum of people's wants. The free market is the most efficient allocator of capital funds ever invented.

But the trouble with earnings as an indicator of where new capital ought to be going—to satisfy the maximum of public wants at least cost —is that, if the free market is monkeyed with politically, the signal system will give a false indication. This signal system has for a good many years been giving a false indication against investment in railroads.

For example, the annual compilation by the First National City Bank of New York of industry earnings, in ratio to net assets, shows Class I railroads in 1959 with a return of 3.4% on such assets. This is the lowest rate of return of any industry in the bank's tabulation. The manufacturing industry earned 11.6% and public utilities 10.1%. Disproportionately low earnings by railroads have been shown for several decades in this annual tabulation.

Such earnings say, in effect, to the investor: Don't put your money into railroads. Put it into manufacturing and utilities. Or put it into "miscellaneous transportation" (which earned 13% in 1959) or air transportation (which earned 9.6%).

The trouble with the signals, thus set at danger against railroad investments, is that *they do not reflect the true relative economics of railroading* —but are distorted by political monkeying around to the railroads' disadvantage. Specifically: Heavy expenditures of public funds on highways, inland waterway and air transportation facilities (which are not paid for in full by the users) depress railroad earnings arbitrarily, while they give a false-clear indication, encouraging increased investments in highway, waterway and air transportation.

Another red signal (not of free market origin) is set against the inflow of investment funds for railroad improvements by working rules which establish 100 miles as a day's pay in railroading, whereas truck drivers do 200 miles or more. And this is just one example of many such restrictions.

The sum-total effect of the non-economic factors—which are beclouding and falsifying the inherent economy of railroad service—is the present critical situation of the railroads. Here we have the railroads, as a whole, down to a bare subsistence level of earnings at a time of general prosperity, with some major companies actually operating in the red. Where will the industry be in the event of a major fall-off in general business?

•

With this factual background, Labor Secretary James P. Mitchell made a speech a week or two ago to the Railway Employees Department of the AFL. In it he advised unionists and managements to confer with each other—hoping they might agree to petition the federal government for "gradual elimination of all government subsidies in transportation." Commerce Secretary Mueller, a few weeks ago, made a similarly mild suggestion for remedial action—but he, also, favored "gradualism." In other words, government should correct the evils from which railroads are suffering (from politics, not from economics)—but *for heaven's sake let's not take any corrective action now*. Let's delay, put it off and wait.

Neither Secretary Mitchell, nor Secretary Mueller, nor the railway union chiefs, appear to realize that a substantial part of the railroad industry is suffering from galloping anemia, which could quickly result in a major crisis if general business were to fall off sharply.

Automatic Classification Yard in action. One of the Burlington's new box cars moves down the Cicero Yard hump and through the master retarder. Okonite cables guard all signal circuits against the dangers and expenses of "chain-reaction" jam-ups caused by equipment failure.

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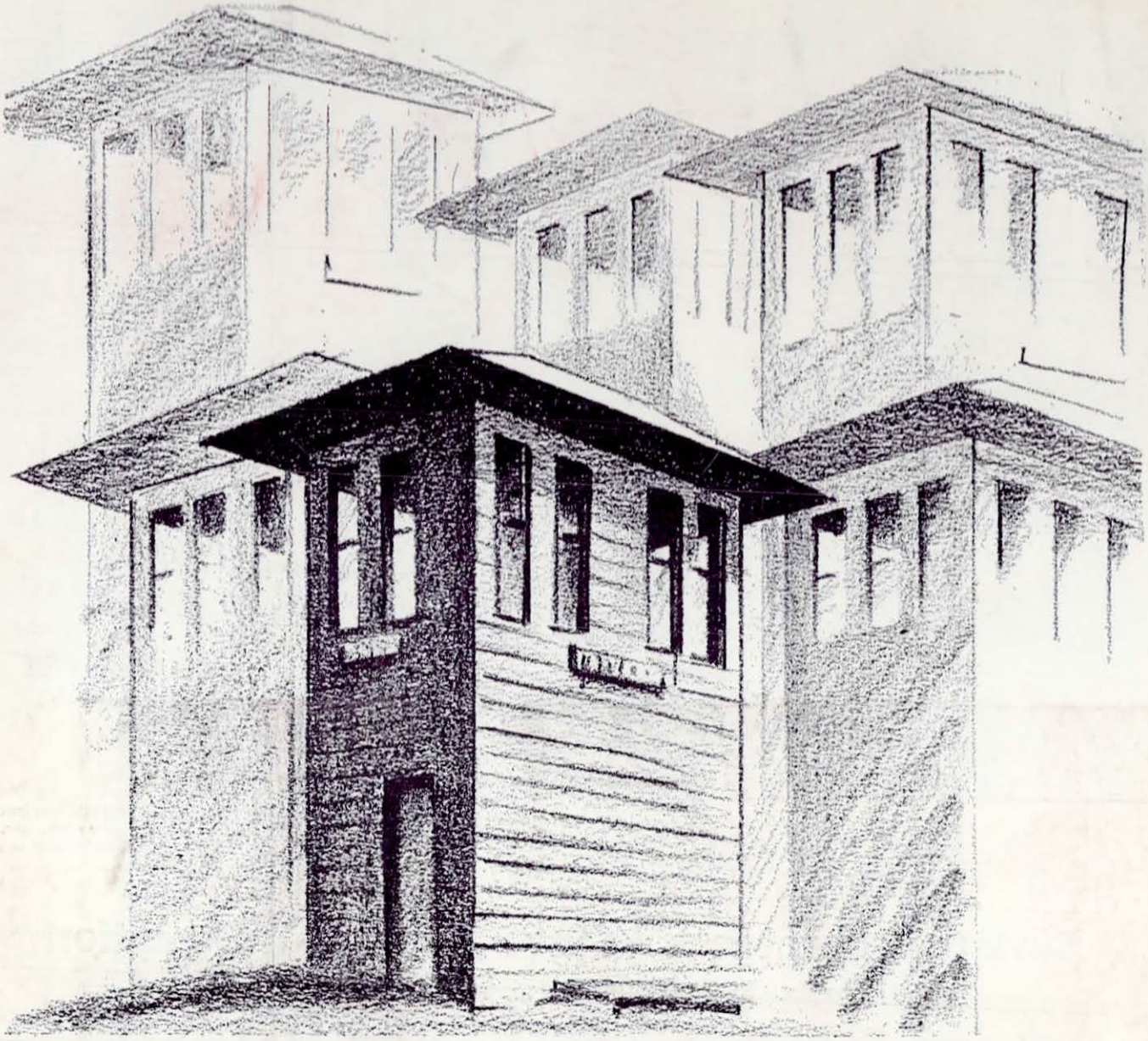

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